

Draft

Two Rivers Trail (Phase II) Environmental Impact Report – DEIR Appendices



Prepared for:

City of
SACRAMENTO

August 2019

Prepared by:



Appendix A. IS/MND & Comments Received

A.1 Summary of Comments and Comment Letters

Two Rivers Trail Phase II: Written Comments regarding Initial Study/MND

COMMENTS	DATE	NOTES
AGENCIES		
Regional SAN	September 25, 2018	
County of Sacramento Regional Parks	November 5, 2018	
American River Flood Control District	November 9, 2018	
Central Valley Regional Water Quality Control Board	November 21, 2018	
California Department of Transportation	November 21, 2018	
State of California – Office of Planning and Research	December 3, 2018	
ORGANIZATIONS		
PG&E	October 23, 2018	
SMUD	November 21, 2018	
Friends of Sutter’s Landing Park (FOSL) and Friends of the River Banks (FORB)	November 29, 2018	
Save the American River Association	November 29, 2018	
Habitat 2020	November 29, 2018	
Save Don’t Pave (Soluri Meserve)	November 30, 2018	
Save Don’t Pave (Soluri Meserve) Errata	December 4, 2018	
INDIVIDUALS		
Julie Lincoln	October 27, 2018	
Jim Scrivner	October 27, 2018	
Carol V. Michael	October 31, 2018	
Michael O’Brien	November 1, 2018	
Leland H. Ruth	November 2, 2018	
Robert Montgomery	November 5, 2018	
Jason Lynch	November 12, 2018	
Eric Schranz	November 13, 2018	
Alison French-Tubo	November 20, 2018	
Thomas Cordano	November 21, 2018	
Mark Heilman	November 22, 2018	
Susan Hausmann	November 26, 2018	
Steve Anderson	November 28, 2018	
Cheryl Franzi and Gregory Jamnetski	November 28, 2018	
Emmy Mignano	November 29, 2018	
Gregory Mignano	November 29, 2018	
Tracy Keith	November 29, 2018	
David Moffatt	November 29, 2018	
Sean O’Brien	November 29, 2018	
Pam Kennedy	November 29, 2018	
Nancy MacKenzie	November 29, 2018	

COMMENTS	DATE	NOTES
Stuart Reeves	November 30, 2018	
Horacio Porath	November 30, 2018	
Horacio Porath	November 30, 2018	
Kate Riley	November 30, 2018	
Alex Burt	November 30, 2018	
Sidney Scheideman	November 30, 2018	
Robert Scheideman	November 30, 2018	
Eve Martinez	November 30, 2018	
Sheri Opp	November 30, 2018	
Jane Hunter	November 30, 2018	



September 25, 2018

Mr. Tom Buford
City of Sacramento – Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Subject: Revised Notice of Availability/Intent to Adopt the Proposed Mitigated Negative Declaration for the Two Rivers Trail Project Phase II (K15125000)

Dear Mr. Buford,

Sacramento Regional County Sanitation District (Regional San) has reviewed the Mitigated Negative Declaration and has the following comments.

The City of Sacramento (City) propose to construct the remainder of Phase 2 of the Two Rivers Trail by extending the Class 1 bicycle and pedestrian trail for 3.4 miles on the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge.

Regional San Advisories:

1. Regional San has the 24-inch Mode 2 sewer force main (Regional San operating system S23) located on the northwest side of westbound Business 80 (APN: 001-0170-006) within the proposed project's boundaries. This facility is considered decommissioned by Regional San; however, the subject facility will need to be protected in place during any construction activities.

If you have any questions regarding this letter, please feel free to contact me at (916) 876-6104 or by email: armstrongro@sacsewer.com.

Sincerely,

Robb Armstrong

Robb Armstrong
Regional San Development Services & Plan Check

Main Office

10060 Goethe Road
Sacramento, CA 95827-3553
Tel: 916.876.6000
Fax: 916.876.6160

Treatment Plant

8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tel: 916.875.9000
Fax: 916.875.9068

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Nicole Coleman

Public Affairs Manager

www.regionalsan.com



County of Sacramento

Tom Buford
Principal Planner
Community Development Department
City of Sacramento
300 Richards Blvd, Third Floor
Sacramento, CA 95811

November 5, 2018

RE: Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration

Dear Mr. Buford:

I am writing to comment on the Two Rivers Trail (Phase II) Initial Study.

TREE REMOVAL

The Initial Study examines permanent and temporary tree impacts, but excludes Segments 1 and 2 because construction of those segments will be in the future (Initial Study, p. 38). Segment 1 and a portion of Segment 2 lie within the American River Parkway, approximately ½ a mile. While the impacts were not examined at this time, the Department requests that the City examine the tree impacts when construction on Segments 1 and 2 is expected through an Initial Study addendum.

Construction on Segments 3 through 6 will permanently remove 22 trees and temporarily affect 72 additional trees due to trimming. Mitigation 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees states "...to compensate for permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at 1:1 ratio..." (Initial Study, p. 46). The American River Parkway Advisory Committee (ARPAC) and County Recreation and Park Commission recommends replanting native trees and shrubs on-site, rather than off-site. Removal of invasive plants is also encouraged (ARPAC; June 15, 2018, County Recreation and Park Commission; November 15, 2018).

ENFORCEMENT

The description of trail enforcement responsibility in the Initial Study is unclear. "The project site is located within the City of Sacramento and within the Woodlake and Paradise Beach ARPP areas. The Sacramento County Park Ranger Unit is responsible for day-to-day patrol and law enforcement within the Parkway. The City of Sacramento Police (SPD) and Sacramento County Sheriff's Department have concurrent law enforcement responsibilities within their respective jurisdictions where those jurisdictions overlap with the Parkway. ..." (Initial Study, p. 81). Consistent with Phase 1 of the Two Rivers Trail, the enforcement of the Two Rivers Trail is the responsibility of the City of Sacramento and these responsibilities should be defined in a lease agreement with the County for construction and operation of the trail on County land.

November 26, 2018

On June 15, 2018, the ARPAC voted to approve staff recommendation to amend the existing lease of real property and joint use agreement for the Two Rivers Trail or establish a new lease of real property and joint use agreement prior to final approval of 100% construction drawings by County Recreation and Park Commission. The ARPAC and County Recreation and Park Commission recommend the lease and joint use agreement clearly define the responsibilities of the City for maintenance and enforcement activities for the trail. The County Recreation and Park Commission recommends the lease and joint use agreement be approved by the Board of Supervisors prior to review of 100% construction drawings by the County Recreation and Park Commission. (County Recreation and Park Commission; November 15, 2018).

Thank you for the opportunity to comment.

Cordially,

A handwritten signature in blue ink, appearing to read "Liz Bellas", with a stylized flourish extending to the right.

Liz Bellas
Deputy Director

CC: Adam Randolph, Project Manager, City of Sacramento



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Timothy R. Kerr, P.E.

November 9, 2018

Tom Buford
Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, CA 95811

Dear Mr. Buford:

Thank you for the opportunity to review and comment on the Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration. I also thank you for the City's outreach to the District throughout the planning process for this project. The City has gone to great lengths to adhere to the requirements of the American River Flood Control District's Recreational Trails Policy and has invested considerable time and resources into meeting this objective. The result is a trail proposal that preserves the integrity of the levee and protects the safety of the recreating public.

During the review period for the IS/MND, the District has been approached by residents asking if we support the proposed trail alignment detailed in the City document. I would like to clarify that the District supports the City's proposed alignment and also explain why we feel that this alignment is the best feasible alternative for public safety.

The District adopted its Recreational Trails Policy in 2002 to clarify how best to coordinate with recreational trail proposals being developed to interface with the urban levee system. Our policy indicated that the District supports recreational uses of the levee as long as flood control remained the primary purpose within the levee footprint. For that reason, the Policy states that trails are acceptable if, where feasible, they are located at the levee toe. This stipulation is to preserve the District's free access to the levee crown for levee operations and maintenance activity. No obstructions are allowed on a levee crown because that is the essential zone of access and travel for operations, maintenance, inspections, and flood fights. Of the District's 40 miles of levees in the Sacramento region, only 4.8 miles of the levee crown roadway is paved for trails. The rest of the levee crown roadway surface is gravel or chip seal and the majority of trail proposals have been successfully placed at the levee toe.

The trail policy discourages recreational trails on the levee crown because of the potential threat to members of the public. The District's maintenance crews are out on the American River levees using heavy equipment every work day and 24/7 during periods of high water. Just as with a construction site where members of the public are separated from heavy equipment, so it is with levees. Members of the public who choose to recreate on levees need – for their own safety – to be separated from the District's operation of heavy equipment. It is for this reason that the District strongly supports the City's

proposal to have the recreational trail physically separated from and located off of the levee crown in the River Park area.

It is because of this concern for the safety of the recreating public and our awareness of the high risk of dangerous collisions, the District's Recreational Trails Policy requires that where feasible, all trails must be off the levee crown roadway. The City's proposed trail alignment shown in the IS/MND adheres to this requirement and we thank you for making that a key criteria of your proposal.

The second major concern that has been presented to us from the public is the concern with the plan's proposal to construct a mid-slope bench in the waterside slope of the levee. The public is concerned that including such a mid-slope bench, with the associated retaining wall, will diminish the stability of the levee and so endanger public safety. While it is understandable that the public is concerned about levee stability, for the reasons discussed below, that concern is misplaced.

District staff worked early on in the formulation of this effort to help identify an alternate path for the trail, recognizing that there was insufficient space for the trail on the waterside toe of the levee. Of the numerous concepts envisioned, the mid-slope bench was the most feasible outcome that preserved the integrity of the levee section while keeping the crown free from being obstructed. This is made possible by two factors: the precise inclusion of a retaining wall in the levee slope and the fact that the levee in River Park has excess freeboard.

Freeboard is the measure of extra levee height required above the water surface for a design flood event. This is necessary to serve as a buffer to withstand erosion from wind and waves in a flood event as well as to accommodate for the risk and uncertainty introduced from changing soil conditions over time. Excess freeboard means even more height exists than what is required by the US Army Corps of Engineers. It is our understanding that the levee in River Park has approximately 7-feet of freeboard above the design water surface and the Corps of Engineers only requires 3-feet. Due to the extra height on the levee, the levee is also wider than necessary. This extra height and width leaves a section of fill outside the required levee cross section that could be made available to locate the mid-slope bench without impinging on the section for necessary flood control.

Retaining walls are allowed by the US Army Corps of Engineers to be implemented in federal levees as long as the designs comply with Engineering Manual 1110-2-1913, Design and Construction of Levees. This technical guidance governs the design considerations that must be followed to install any feature in a federal levee. The designs developed for the Two Rivers Trail will be required to meet all State and Federal engineering requirements for levees to ensure that there is no reduction in integrity from the necessary level of flood protection. State levee requirements that must be met will include both Title 23 and the Urban Levee Design Criteria, which was adopted to ensure a 200-yr level of flood protection for urban populations. It is a common engineering expectation that retaining walls can be designed to improve the slope stability of an earthen embankment. The development of the City's Two Rivers Trail is a great example of where that is possible.

In short, creating a mid-slope bench with a retaining wall will not impair the structural integrity of the levee. If properly designed in compliance with all applicable state and federal standards, the levee will be stronger with those design elements and will fully meet the most stringent standards to protect the public from flooding. The US Army Corps of Engineers, which supervises the construction and

operation/maintenance of levees, will make sure that the proposed project is properly designed and constructed.

Once again, thank you for the opportunity to review and comment on the IS/MND for the Two Rivers Trail Phase II Project. The District supports the current proposal and applauds the City's team for developing a plan that complies with the District's Recreational Trails Policy. We feel this is the best way to provide a recreation trail and protect public safety.

Please feel welcome to contact me if you require any additional information at (916) 929-4006 or by e-mail at tkerr@arfcd.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tim Kerr", with a long horizontal flourish extending to the right.

Tim Kerr
General Manager

Cc: Adam Randolph, City of Sacramento Department of Public Works

Central Valley Regional Water Quality Control Board

21 November 2018

Adam Randolph
City of Sacramento
Public Works Department, New City Hall
915 I Street, Room 2000
Sacramento, CA 95814

CERTIFIED MAIL
7018 1830 0001 0062 3237

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, TWO RIVERS TRAIL PHASE II PROJECT, SCH# 2018102058, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 23 October 2018 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the Two Rivers Trail Phase II Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley

Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/for_growers/apply_coalition_group/index.shtml or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order.

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

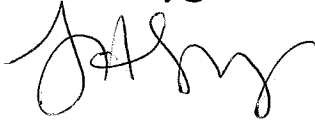
NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4812 or Jordan.Hensley@waterboards.ca.gov.



Jordan Hensley
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

DEPARTMENT OF TRANSPORTATION**DISTRICT 3**

703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 634-7616
FAX (530) 741-4111
TTY 711
www.dot.ca.gov/dist3



*Making Conservation
a California Way of Life.*

November 29, 2018

GTS# 03-SAC-2018-00326
03-SAC-51 PM 2.623

Tom Buford
Principal Planner
City of Sacramento
300 Richards Blvd
Sacramento, CA 95819

Two Rivers Trail – Mitigated Negative Declaration

Dear Tom Buford:

Thank you for including California Department of Transportation (Caltrans) in the application review for the project referenced above. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this local development for impacts to the State Highway System (SHS) in keeping with our mission, vision and goals for sustainability/livability/economy, and safety/health. We provide these comments consistent with the state's mobility goals that support a vibrant economy and build communities.

The proposed project is primarily located along the waterside levee toe of the America River within the confines of the American River Parkway. A portion of the new multi-use trail would pass under the Capitol City Freeway (SR-51) at approximately Post Mile 2.623, on the southern side of the America River. The new multi-use trail proposes to create 3.4 miles of new Class 1 bicycle and pedestrian trails from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Avenue, and east from the terminus of the Sutter's Landing Regional Park to the H Street bridge. Caltrans provides the following comments based on the Mitigated Negative Declaration (MND) received:

Encroachment Permit

An encroachment permit will be required from Caltrans for any work performed on the State Right-of-Way (ROW), if not previously obtained. To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State ROW must be submitted to:

Tom Buford
City of Sacramento
November 29, 2018
Page 2

Hikmat Bsaibess
California Department of Transportation
District 3, Office of Permits
703 B Street
Marysville, CA 95901

Please provide our office with copies of any further actions regarding this project. We would appreciate the opportunity to review and comment on any changes related to this development.

If you have any questions regarding these comments or require additional information, please contact Todd Rogers, Intergovernmental Review Coordinator, by phone (530) 741-4507 or via email to todd.rogers@dot.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Alex Fong', is written over a light blue circular stamp.

Alex Fong, Branch Chief
Office of Transportation Planning
Regional Planning Branch—South



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH



KEN ALEX
DIRECTOR

December 3, 2018

Adam Randolph
City of Sacramento
915 I St, Rm 2000
Sacramento, CA 95814

Subject: Two Rivers Trail Phase II
SCH#: 2018102058

Dear Adam Randolph:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on November 30, 2018, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

**Document Details Report
State Clearinghouse Data Base**

SCH# 2018102058
Project Title Two Rivers Trail Phase II
Lead Agency Sacramento, City of

Type MND Mitigated Negative Declaration
Description Note: Review Extended Per Lead

The proposed project would create approx 3.4 miles of new Class 1 bicycle and pedestrian trail, primarily along the waterside toe of the levee on the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge. The trail would generally consist of an 8-ft wide paved path with a 2-ft wide compacted aggregate base shoulder on the inner side and a similar 4- to 6-ft wide shoulder on the waterside to provide space of walking and jogging adjacent to the paved portion of the trail. The trail would be paved and engineered to be load-bearing to accommodate maintenance and emergency vehicles.

Lead Agency Contact

Name Adam Randolph
Agency City of Sacramento
Phone (916) 808-7803 **Fax**
email
Address 915 I St, Rm 2000
City Sacramento **State** CA **Zip** 95814

Project Location

County Sacramento
City
Region
Lat / Long 38° 34' N / 121° 26' W
Cross Streets 28th and B St, Carlson Dr and Sandburg Dr, H St and Camelia Ave
Parcel No. multiple
Township 8/9N **Range** 5E **Section** CA **Base** MD

Proximity to:

Highways Bus 80, SR 160, SR 50
Airports
Railways UPRR
Waterways Lower American River, Sacramento River
Schools Multiple
Land Use parks and rec, employment center low rise, proposed park/parkway/ag-OS, Heavy and industrial, ...

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Recreation/Parks; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Cal Fire; Department of Water Resources; Caltrans, District 3 N; Office of Emergency Services, California; Regional Water Quality Control Bd., Region 5 (Sacramento); Air Resources Board, Transportation Projects; Native American Heritage Commission; Public Utilities Commission

Date Received 10/23/2018 **Start of Review** 10/23/2018 **End of Review** 11/30/2018



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

November 26, 2018

TO: CEQA LEAD AND REVIEWING AGENCIES

RE: ANNOUNCEMENT OF CHANGE, NEW CEQA DATABASE

The **Office of Planning and Research, State Clearinghouse (SCH)** is preparing the transition to a new CEQA database. We would like to inform you that our office will be transitioning from providing hard copies of certain letters and notices to an electronic mail system. Copies of environmental documents, notices and comment letters from state agencies will also be available for view and download.

CEQA lead and reviewing agencies should include an e-mail address (at least one (1)) to receive electronic notifications.

The letters and notifications from the SCH that will now be e-mailed include: acknowledgement of receipt and close of environmental documents, comments received from state reviewing agencies on environmental documents, as well as notices of determinations and exemptions.

Updates on when the database will be accessible for lead agencies to upload and submit environmental documents and notices, along with the ability for state agencies to review and comment on environmental documents through the database, will be provided as those functions become available.

For this transition process, please send your e-mail address to:

State.clearinghouse@opr.ca.gov

Should you have any questions, please do not hesitate in contacting the State Clearinghouse at (916) 445-0613 or state.clearinghouse@opr.ca.gov

October 23, 2018

Tom Buford
City of Sacramento
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Ref: Gas and Electric Transmission and Distribution

Dear Mr. Buford,

Thank you for submitting K15125000 plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.
2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.
3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851 filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management

Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: <http://usanorth811.org/wp-content/uploads/2017/05/CA-LAW-English.pdf>

1. **Standby Inspection:** A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.
2. **Access:** At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.
3. **Wheel Loads:** To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. **Grading:** PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.
5. **Excavating:** Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [$24/2 + 24 + 36/2 = 54$] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible ($90^\circ \pm 15^\circ$). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line 'kicker blocks', storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4') in height at maturity may be planted within the easement area.

11. Cathodic Protection: PG&E pipelines are protected from corrosion with an "Impressed Current" cathodic protection system. Any proposed facilities, such as metal conduit, pipes,

service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as "**RESTRICTED USE AREA – NO BUILDING.**"
2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.
3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&E's facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.
4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.
5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.
6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.
7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.
8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for

proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (<https://www.dir.ca.gov/Title8/sb5g2.html>), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.



Sent Via E-Mail

November 21, 2018

Tom Buford
Community Development Department
300 Richards Blvd.
Sacramento, CA 95811
tbuford@cityofsacramento.org

Subject: Two Rivers Trail Phase II / K15125000 / MND

Dear Mr. Buford:

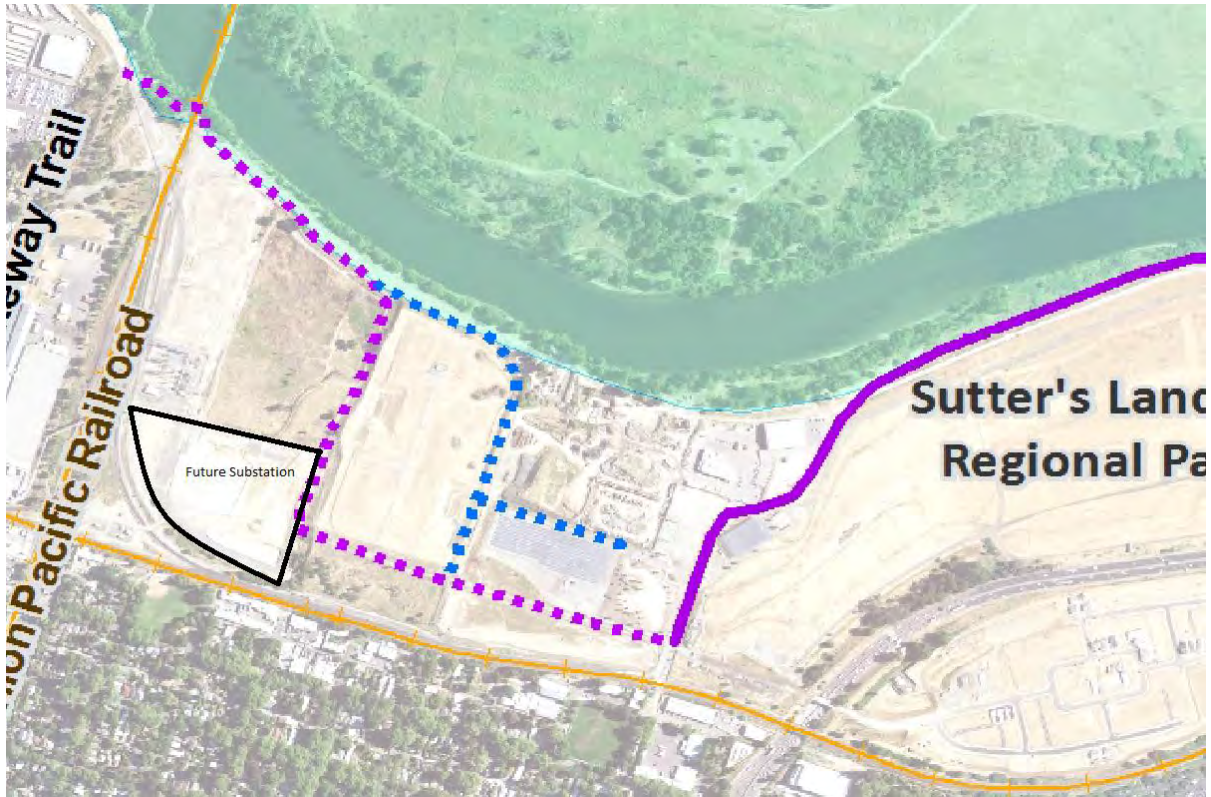
The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the proposed Mitigated Negative Declaration (MND) for the Two Rivers Trial Phase II Project (Project, SCH K15125000). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project MND will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
 - <https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services>
 - <https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way>
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

The area defined by this Mitigated Negative Declaration (MND) is within the Sacramento Municipal Utility District's (SMUD) 21kV service territory. The proposed bike trail routes do not impact the existing 21kV infrastructure in the area defined by this MND. SMUD does have a future substation construction project that would border the South-West corner of the preferred planned construction path (black polygon). The alternate planned construction path would not come into contact with the proposed substation site.



The project owner shall submit to SMUD's Real Estate Services an application for transmission encroachment along with detailed project plans. Approval of proposed development is by executed agreement only.

SMUD has three 115 kilo-volt (KV) transmission lines in the project area of Western Segment 1. The project proposes a potential staging area in this segment. The staging area would be located below the 115kV transmission lines. Further SMUD has two lattice steel transmission towers located adjacent to the South Side of the American River Levee.

1. All personnel and boom-operated equipment performing work within SMUD's easement shall obey Electrical Safety Orders of California Title 8, Subchapter 5.
2. Project owner shall protect the lattice steel transmission towers from vehicular impact. This can be accomplished by use of temporary construction barriers.
3. All excavations within 25 feet of any structure will require the submittal of construction procedures, drawings, calculations and shoring plans reviewed and stamped by a licensed California Civil Engineer. Excavations having a depth exceeding 10 feet and

within 50 feet of any structure may also require the submittal of same. In some locations and for some projects a geotechnical report, stamped by a licensed California Geotechnical Engineer may also be required. All excavation work within 25 feet of any structure shall be performed in the presence of a SMUD Inspector.

4. All above ground metallic facilities proposed within the SMUD easement must be properly grounded. Grounding plans should be stamped by a California licensed electrical engineer, meet all National Electric Safety Code requirements, and be submitted to SMUD for review.
5. Add the following note to all applicable drawings:

WARNING – SMUD 230KV OVERHEAD TRANSMISSION LINES ARE LIVE – Electrocution Potential. Project owner or Contractor shall take all appropriate safety measures when working near or under lines, including placement of OSHA-required warning signage. On-site SMUD inspection required when working within 25 feet of SMUD facilities. Contractor shall contact SMUD Inspection Services at (916) 732-4990 to schedule inspection. 72-hour advance notice is required. Project owner or Contractor shall protect SMUD facilities during construction and notify SMUD immediately if facilities are damaged. Any damage to existing facilities shall be repaired at the project owner or contractor's expense.

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this MND.

If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Rob Ferrera, at rob.ferrera@smud.org or 916.732.6676.

Sincerely,



Nicole Goi
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
Nicole.goi@smud.org

Cc: Rob Ferrera

Two Rivers Bike Trail Phase II Proposed Project FOSL and FORB Comments

Mr. Tom Buford, Principal Planner

Attention: Adam Randolph, Project Manager, (916) 808-7803/

arandolph@cityofsacramento.org

Community Development Department

300 Richards Boulevard

Sacramento, California 95811

FOSL and FORB Comments on Two Rivers Bike Trail Phase II Proposed Project

I am writing on behalf of Friends of Sutter's Landing Park (FOSL) and Friends of the River Banks (FORB) to provide comments on the proposed Phase II Two Rivers Bike Trail. FOSL and FORB were actively involved in securing and developing the grant for restoration, improvements and interpretive information at Sutter's Landing Park which included construction of adjacent segment of the Two Rivers Bike Trail now in use. FORB and FOSL have been active in the project area and downstream at Sutter's Landing Park for over 10 years including hosting many outdoor environmental programs, wildlife counts and other activities. We have documented the presence of many wildlife species in the area and have worked to preserve, restore and expand the wildlife and habitat values in this section of the American River. We have also worked with others to develop a vision for Sutter's Landing Park as Sacramento's gateway to the American River Parkway. Recently, the city of Sacramento submitted state grant proposals identifying preserving, restoring and expanding Sutter's Landing Park as its top priority including more work on the Two Rivers Bike Trail.

FOSL and FORB support extending the Two Rivers Bike Trail as an important contribution to the American River Parkway and Sacramento city parks including Sutter's Landing Park and Glen Hall. Unfortunately we have significant concerns about the proposed location for this phase of the bike trail as currently designed. The currently proposed bike trail extension location would cause unnecessary impacts to existing natural resources including wildlife, habitat and passive recreation activities. These impacts are significant, not adequately assessed or mitigated and could be avoided by locating the trail on top of the levee as necessary to avoid tree and habitat loss. There are other existing segments of this trail now located on the top of the same levee.

FORB and FOSL strongly oppose the current proposal which would place a new paved bike trail at the toe of the levee slope and/or *incised into the levee bank between Sutter's Landing Park and H Street. This location for the new bike trail would impact wildlife and scarce sensitive riparian habitat present now. The original proposal for new bike trail location at Sutter's Landing Park was on top of the levee for the same reasons. When the American River Flood Control agency balked at this location late in the grant cycle claiming that it would interfere with their maintenance activities the trail was relocated rather than providing them access control when maintenance is necessary and requires it. A top of the levee paved bike trail is in place and appears to work adequately downstream on the same Two Rivers trail. The result for the recently constructed bike trail at Sutter's Landing Park included inadequately mitigated impacts to existing wildlife and habitat including sensitive plants such as elderberry, host for the endangered Valley Elderberry Longhorn beetle and other species. These impacts resulted from more foot and bike traffic that encroaches into existing vegetation now as a result of locating the trail off the levee top. This new footbike traffic increased off-trail activities in habitat areas. These impacts were not adequately evaluated or mitigated for in the previous project and they have not been considered in the proposed project. The same impacts would occur and be greater if the new extension of the bike trail is located off the top of the levee. This is unacceptable and the new trail project should be held back until another avoidance alternative is developed and has been fully analyzed.*

If the proposed project continues with a toe of slope design, it will be necessary to provide mitigation for impacts to existing vegetation including sensitive species habitat which serves as a wildlife corridor to adjacent areas of the American River Parkway and Sutter's Landing Park. This mitigation must include avoidance measures to limit off trail access into vegetation, restoration of vegetation and removal of invasive plant species. Maintaining an intact and functioning wildlife corridor will require locating the new trail so that it doesn't encourage off-trail activity in sensitive areas. The current proposal does not accomplish that. Further analysis and environmental studies are needed. The current environmental assessment and mitigated negative declaration (MND) are inadequate and incomplete regarding these issues. A full environmental impact report (EIR) will be needed for the bike trail project as proposed.

Sacramento County has initiated a Natural Resource Management Plan (NRMP) for the American River Parkway including the segment that this bike trail will be built in. As proposed, the bike project impacts natural resources that need to be fully evaluated and mitigated for and the project will need to wait for the completion of the NRMP. Likewise, the Lower American River Task Force has a Bank Protection Working Group that is currently evaluating flood control priorities and strategies including the project area. The current

bike project location could interfere with this work and must wait until it is finished next year so these results can be included in the proposed bike trail project. These needs will further increase the cost of the project. The flood control agency should be responsible for compensating for any impacts to trees, wildlife and sensitive habitat they cause as part of this bike trail project.

If Phase II of the bike trail is located on the top of the levee there will be much less impact to wildlife, trees and habitat and a lower overall cost to the project. If the flood control agency needs to control trail traffic on the levee this can be done with signs, barriers and a city street detour if necessary as is done elsewhere. Long time users of these levees for walking and bike riding including FOSL and FORB members have not seen any conflict or risk with flood control activities which are infrequent. There are other sections of existing bike trail in the Parkway that are located on the tops of the levee and conflicts have not been documented. It is especially important to locate the new bike trail on top of the levee in the section to the east of I-80 where there is very little room on the existing path at the toe of the levee. Project costs would also be less with a top of the levee design due to no need for levee incision design or construction.

IS/MND Comments:

Offsite mitigation is NOT appropriate due to the necessity to maintain onsite wildlife corridor function and American River Parkway natural resource values.

The current bike trail location hasn't fully considered the pending work on the NRMP and BPWG which is necessary unless natural resource impacts are avoided.

Locating the new bike trail at the toe of the levee would make it vulnerable to high water flow flooding making the trail impassible. Under those conditions or for other preferences riders would continue to use the top of the levee instead.

Construction staging areas need to be outside the American River Parkway to avoid impacts.

Tree and vegetation removal is unnecessary with levee top construction. No specific mitigation has been proposed for the tree/vegetation losses identified.

White-tailed Kites and other raptors including state listed Swainson's hawk are known to nest and forage in the general project area but were not adequately evaluated or mitigated for.

Disturbance to riparian habitat was noted but not adequately documented, evaluated or mitigated. How will these disturbances during and after construction? Monitoring will be needed for this impact.

Valley Elderberry Longhorned beetle habitat and likely presence was identified. Since the flood control agency requirements are responsible for triggering these impacts, that

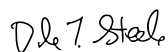
agency should be responsible for mitigation costs.

The proposed project needs to include complete analysis for a levee top alternative including identifying any impacts or avoidance that would result.

Post-construction impacts of increased recreation in an area of the Parkway that has had limited access previously must be included in an EIR. Any differences between these impacts from trail location at the toe or top of the levee must be included

In conclusion, Friends of Sutter's Landing Park and Friends of the River Banks support a properly planned Phase II extension of the Two Rivers Bike Trail that avoids unnecessary impacts and we are available to share our experience and knowledge of the area. We oppose the proposed project as planned because of unnecessary avoidable impacts that have not been properly assessed or mitigated. We urge the city to take appropriate steps now to avoid increasing impacts to scarce vegetation which serves as an important wildlife corridor and allows much passive wildlife viewing and passive recreation along the southern side of the American River Parkway.

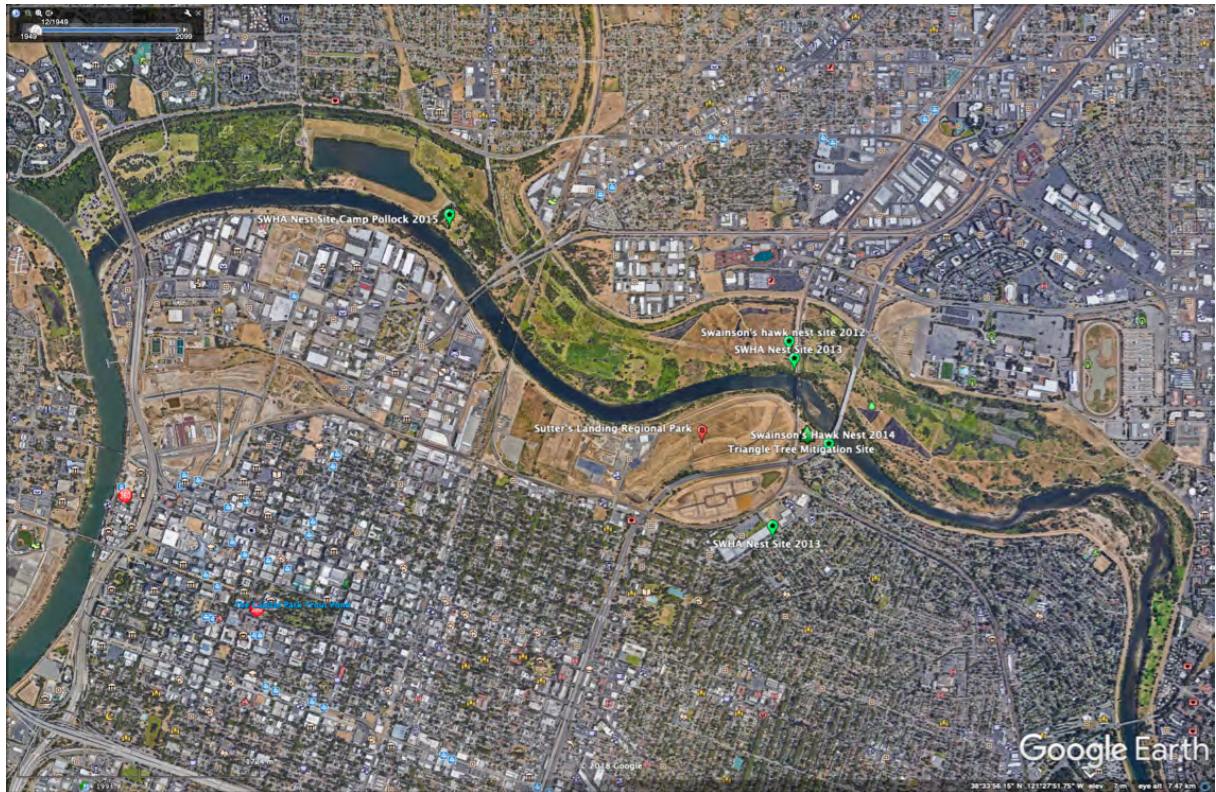
Signed,



Dale T. Steele, for FOSL and FORB

<https://www.friendsoftheriverbanks.org>

<http://www.sutterslandingpark.org>



Google Map of the Lower American River Parkway showing limited existing riparian vegetation and wildlife habitat on the south side of the river. Further tree/habitat loss must be avoided and fully mitigated on site after an adequate assessment in an EIR.



Save the American River Association

8836 Greenback Lane, Suite C • Orangevale, CA 95662

916-936-4555 • E-mail: info@SARAriverwatch.org • www.SARAriverwatch.org

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David Thesell

November 29, 2018

Mr. Tom Buford, Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, California 95811

Subject: Comments in response to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Two Rivers Trail Phase II project, in particular segments 3 through 6

Dear Mr. Buford:

Save The American River Association (SARA) appreciates the opportunity to submit the following comments regarding the above subject.

SAVE THE AMERICAN RIVER ASSOCIATION

SARA was founded in 1961 to establish the American River Parkway. Beginning with a band of 7, including Effie Yeaw, the long held vision to preserve the natural landscape and open up recreation opportunities along the American River took years to achieve. A Sunset Magazine article written to commemorate the Parkway's dedication in 1964, described a county official as saying "Thus far, everybody but the United Nations has had a hand in the Parkway." (Sunset, October, 1964) The American River Parkway is the gift far thinking, civic minded community members and leaders gave to us, the residents of a rapidly expanding urban area who increasingly value the places that give us relief from our fast paced and over built world. SARA continues today, as we have for the past 57 years, to be the lead voice and advocate protecting the natural and recreation values of the American River and Parkway.

Towards that end, we urge the City of Sacramento to withdraw the IS/MND for the Two Rivers Trail Phase II project because the document fails to study an alternative(s) to the location of the trail as described in segments 3 through 6. At 10% construction design and a project map, it is abundantly clear that the project, as proposed, is inconsistent with the Concepts, Goals and Policies of the American River Parkway Plan. The City of Sacramento is a signatory to the Plan and it is state law. We expect, as stated by Liz Bellas of Sacramento County Regional Parks, that the Two Rivers Trail Phase II, Segments 1 and a portion of Segment 2, will be

covered for impacts to the American River Parkway through an Initial Study Addendum.

“WHILE THE IMPORTANCE OF RECREATIONAL OPPORTUNITIES IS RECOGNIZED, PRESERVING THE NATURAL QUALITIES OF THE PARKWAY RESOURCE IS ESSENTIAL.” (The American River Parkway Plan, Chapter 1, Page 9) (Emphasis added)

The proposed Two Rivers Trail Phase II project is only generally drawn on the Woodlake and Paradise Beach Area Plan maps. The Discovery Park policy 10.4.2, as well as the Plan’s FEIR are more specific in describing the Two Rivers Trail Phase II extension:

“10.4.2 Support construction of a Two Rivers Trail extension to H Street that will provide direct connectivity from California State University Sacramento to downtown Sacramento. THE TRAIL SHOULD BE CONSTRUCTED ON TOP OF THE LEVEE WHERE FEASIBLE.” (The American River Parkway Plan, Chapter 10, Page 150) (ARPP FEIR, Page 6-84) (Emphasis added)

The FEIR and the Plan included the possibility of an extension of the Two Rivers Trail from Tiscornia Park to H Street, with the caveat that the levee be considered as the first alignment choice. As a result, by eliminating the levee top as a trail alignment option, SARA believes that the proposed project is no longer compliant with the Plan’s Concepts, Goals and Policies, and severely damages the Parkway’s ecosystem. As the Plan describes, the American River Parkway is a continuous open space greenbelt along the American River providing functional wildlife corridors and habitats for the 200+ bird species that either live in or migrate through the Parkway, as well as numerous mammals, amphibians, reptiles and fish. It is important to remember that just because a project/activity is shown on an area plan map and/or described in Plan policies, it is neither a mandate or requirement that said project be built or activity permitted.

The Plan initially identifies some future projects and/or activities that could be considered compliant and even desired, if, after detailed environmental review and analysis, with public notice and comment, were found to be consistent with the Concept, Goals, Policies, General Land Use and Area Plan Maps of the Plan.

“10.0 AREA PLANS

Area Plans

10.3 Adoption or modification of an Area Plan or any of its components SHALL (emphasis added) be determined to be consistent with the County General Plan, provided that it is consistent with the goals, Parkway-wide policies, and General Land Use Map of the Plan, and approved by the County Board of Supervisors.” (The American River Parkway Plan, Chapter 2, Page 38)

Again, SARA believes that because the IS/MND has eliminated the study of a levee alignment where feasible in accordance with Policy 10.4.2, the Two Rivers Trail Phase II, Segments 3 through 6 in particular, is inconsistent with the Plan, as follows:

“3.0 RESOURCES OF THE PARKWAY

Terrestrial Resources Policies

3.2 *Agencies managing the Parkway SHALL (emphasis added) protect, enhance and expand the Parkway’s native willow, cottonwood, and valley-oak dominated riparian and upland woodlands that provide important shaded riverine aquatic habitat (SRA), seasonal floodplain, and riparian habitats; and the native live oak and blue oak woodlands and grasslands that provide important terrestrial and upland habitat.”* (The American River Parkway Plan, Chapter 2, Page 16)

The use of the word “shall” assigns a legal meaning, and therefore a priority, to the dictates of this and any other policy where “shall” appears.

The IS/MND concludes that “Impacts to Valley foothill riparian habitat would be significant.” It acknowledges the fact that “Impacts related to protected trees would be significant.” And most significantly the IS/MND acknowledges that compensating for the loss of the Valley foothill riparian habitat and protected trees has not yet been determined. The IS/MND cites the Sacramento City’s Master EIR for their 2035 General Plan concluding that given the extent of urban development the preservation and/or restoration of riparian habitat would likely occur outside of City limits. (Pages 37-38)

Given the above, the proposed Two Rivers Trail Phase II project as currently described is not consistent with Policy 3.2.

3.4 Management of the Parkway SHALL (emphasis added) ensure the protection of the Parkway’s resources, its environmental quality and natural values. A resources impact monitoring plan SHALL be developed that clearly defines criteria and standards to monitor, evaluate and protect the Parkway’s resources from overuse, and provide steps to be taken to restore areas that have been overused.” (The American River Parkway Plan, Chapter 2, Page 17)

Without the in-progress Resources Impact Monitoring Plan, the IS/MND cannot possibly conclude that the consequential loss of Valley foothill riparian habitat and protected trees in the American River Parkway can be reduced to less than significant. It is the Resources Impact Monitoring Plan that will hopefully look at and incorporate in its findings the cumulative impacts of activities from ongoing projects implemented by agencies and utilities including but not limited to PG&E, SMUD, WAPA, Sacramento Area Flood Control Agency, and the Army Corps of Engineers to name a few. It will more than likely include the ongoing work of the Bank Protection Working Group/Technical Resource Advisory Committee whose upgraded flood protection action plan includes areas within the Two Rivers Trail Phase II project. The effects of climate change on the Parkway’s natural resources must be quantified when possible.

3.6 *Excavation of aggregate/soil material should not be permitted except as a part of a flood control, environmental restoration or recreation improvement project approved in accordance with the provision of this Plan. Objectives of the project will:*

- a. result in a net improvement to the health of the Parkway ecosystems,*
- b. not cause “harm” to the Parkway*

- c. utilize material within the Parkway, where feasible, prior to being transferred out of the Parkway and*
- d. prohibit commercial mining*

The IS/MND did not address c. Can the excavated material resulting from the project, segments 3 through 6, be used elsewhere in the Parkway? The material volume is stated at 6,000 cubic yards. The soil might be valuable for other projects or areas in the Parkway.

The IS/MND did not address c. as it relates to potentially useful removed trees and woody material for habitat restoration in the Parkway.

Under the project construction section of the IS/MND, the following is stated:

“Following construction, the contractor would remove any construction materials and restore all disturbed surfaces to their PRE-PROJECT CONDITION, including replacing fences, repairing asphalt road surfaces, restoring existing slopes and grades, and revegetating affected surfaces through means such as hydroseeding.” (Emphasis added) (IS/MND, Page 15)

How does the above relate to the IS/MND’s Mitigation Measure 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees? Measure 3-6 states that *“to compensate for the permanent removal of riparian vegetation associated with trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio...”* (IS/MND, Page 46)

Off-site mitigation is not consistent with Policy 3.6 a. and b.

Aquatic Communities Policies

- 3.11 *Agencies managing the Parkway SHALL identify, enhance and PROTECT (emphasis added):*
- a. areas where maintaining riparian vegetation will benefit the aquatic and terrestrial resources*
 - b. current shaded riverine aquatic habitat; and*
 - c. other areas that can support a shaded riverine aquatic habitat, as time and resources permit, especially as associated with flood control or federally/ state mandated species protection projects.* (The American River Parkway Plan, Chapter 2, Page 18)

The Two Rivers Trail Phase II project, as aligned, does not PROTECT (emphasis added) the riparian vegetation essential to the aquatic and terrestrial resources, including the birds, animals, and fish that depend on them. In fact, project segments 3 through 6 alone will permanently remove 22 trees and temporarily affect 72 additional trees due to trimming. Not only does the project itself not protect, through avoidance, the riparian vegetation, but the IS/MND boldly suggests that the purchase of off-site credits at a mitigation bank (IS/MND, Page 46) complies with the Parkway Plan policy to PROTECT (emphasis added) the riparian vegetation benefiting aquatic and terrestrial resources.

RECREATIONAL USE OF THE PARKWAY

Walking, Hiking and Running

Policy 5.13 related to the Jedediah Smith Memorial (bicycle) Trail and the pedestrian trail adjacent to it says in part: “...*The pedestrian trail will be adjacent to the existing paved Jedediah Smith Memorial (bicycle) Trail where practical given the width of the area and location of trees and other natural resources. New trail sections SHALL (emphasis added) avoid heavily vegetated areas and low floodplain locations subject to frequent inundation...*” (The American River Parkway Plan, Chapter 2, Page 23)

While the Two Rivers Trail Phase II is not the Jedediah Smith Memorial (bicycle) Trail with adjacent pedestrian trails, this policy serves as another example of the Plan’s intent and the high priority it places on protecting the natural values of the Parkway for the benefit and enjoyment of people, plants and animals.

TRAILS AND ACCESS

Trails

8.11 *Parkway trail connections to other local, regional and State trails SHALL (emphasis added) be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway’s ecosystem.* (The American River Parkway Plan, Chapter 2, Page 33)

Following on the previous discussion of bicycle and trail design in the Parkway, the Two Rivers Trail Phase II is a trail connection. It connects to the Sacramento Northern Bikeway Trail, the Jedediah Smith Memorial (bicycle) Trail and to Sacramento City streets. This project, as designed, does not minimally damage the Parkway’s ecosystem. The damage is significant, and cannot be mitigated to less than significant as described in the IS/MND.

The Two Rivers Trails Phase II project runs through the Woodlake and Paradise Beach areas of the American River Parkway. While a paved bicycle trail is a permitted use through the mainly protected area land use designation, the policies governing these areas are also clear regarding the protection of the natural resources:

“PROTECTED AREA DESCRIPTION AND PURPOSE

Protected Areas contain tracts of naturally occurring vegetation and wildlife, which although capable of sustaining light to moderate use with minimal alterations to the natural landscape, would be easily disturbed by heavy use. Protected Areas differ from Nature Study Areas in that general access in Protected Areas is encouraged, and convenience-type facilities are permitted to accommodate the anticipated increase in users. However, facilities and other improvements are limited to those which are needed for the enjoyment of the natural environment. EMPHASIS IS ON PROTECTION AND RESTORATION OF LARGE PORTIONS OF RELATIVELY NATURAL AREAS WHICH STAND A BETTER CHANCE OF PRESERVATION THAN SMALLER PIECES AND PROVIDE BETTER SUPPORT FOR WILDLIFE.” (The American River Parkway Plan, Chapter 7, Page 117)
(Emphasis added)

The Woodlake Area and the Paradise Beach Area of the Parkway designate 100+ acres as protected. These large areas are important for the opportunity they provide to be protected and restored as a support for viable populations of wildlife. The IS/MND did not address the global impact of the project to potentially decrease or even prevent these areas from fulfilling their critical ecological niche.

“Woodlake Area

10.16 *Protect, enhance, and expand native habitats that benefit fish and wildlife species including the creation of a seasonal wetland habitat, grassland restoration for raptor foraging habitat, and restoration of riparian and woodland habitat.*

“10.17 Protect and enhance existing resources in the area including habitat for threatened and endangered species, such as Valley Elderberry Longhorn Beetle, and the state registered archaeological site.” (The American River Parkway Plan, Chapter 2, Page 40)

“Paradise Beach

10.26 *Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area.*

Paradise Beach is an area of the Parkway that consists of 106 acres of Protected Area and 2.2 acres of Developed Recreation. . . .Vegetation is a mixture of riparian, grassland, and shrub grassland communities, interspersed with sparsely vegetated sand. This area contains many elderberry bushes and provides excellent habitat for the Valley Elderberry Longhorn Beetle. Large cottonwoods dominate the northernmost tip of the area.

Due to limited, access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area. Permanent structures and other physical changes that would attract groups of users should not be introduced to the area. Acceptable activities include fishing, kayaking, wading, sunbathing, hiking, volleyball, and related beach activities.” (The American River Parkway Plan, Chapter 10, Page 164)

A point is being made by County Parks that the extension of the paved bicycle trail through Paradise Beach and Glen Hall Park will encourage people to ride their bikes to enjoy the aquatic activities that are permitted in this area of the Parkway. This will help, they say, alleviate the problem of too few parking spaces in the Glenn Hall Park parking lot.

The project must address the issue of providing bike racks for those cyclists wishing to enjoy Paradise Beach activities. How many racks and where will they be placed?

11.0 IMPLEMENTATION

Implementation Policies

11.5 *New facilities and programs SHALL not be developed unless the financial resources to operate and maintain them are identified and available. (The American River Parkway Plan, Chapter 11, Page 213)*

The IS/MND, under Police Protection Services, is incorrect in stating that enforcement is adequate in the project area. Sutter’s Landing Park, just down river of the Two Rivers Trail Phase II, Sections

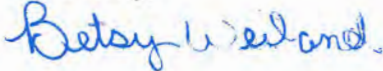
3 through 6, suffers untold impacts from lawless behavior. Dogs off leash, illegal camping, off paved trail cycling, littering, loud music, threatening behavior, and the list goes on. This happens on and around the section of the Two Rivers Trail that was just completed. Our County Park Rangers do the best they can to adequately cover the area but they are stretched thin. As are the City Park Rangers and Police.

In order to be compliant with Policy 11.5, Sacramento County must make sure that the City can provide adequate police patrols and protection for the new trail, as well as the resources to make all necessary repairs to maintain the paved and decomposed granite trails, and keep up the required structures and fencing related to the UP Bridge. Maintenance and replacement of the interpretative and directional signage shall also be included. Appropriate trees/vegetation management related to the trails will also be an operational responsibility and compliant with all environmental rules and regulations.

While SARA has always supported and promoted permitted recreational activities in the Parkway, we believe, on further study, that the Two Rivers Trail Phase II as currently designed is outsized in its impacts to the natural resources of the American River Parkway and the users' experience and expectation. The Jedediah Smith Memorial (bicycle) Trail is the continuous paved bike trail running from the confluence of the Sacramento and American Rivers to Beal's Point. In a particularly sensitive area of the Parkway, where the construction of a paved bike trail connection would cause irreparable harm to the natural resources and the enjoyment of users who reach out to and rely on the American River Parkway as a respite and escape from the built urban environment, the Two Rivers Trail Phase II, in particular segments 3 through 6, must not be built as designed. An Environmental Impact Report is necessary to explore alternatives to providing a dedicated bikeway from Tiscornia Beach to the H Street Bridge.

Thank you for your kind and courteous attention to our concerns. Please feel free to contact me with any questions.

Sincerely,



Betsy Weiland, Land Use Chair
Save the American River Association

flweiland@yahoo.com

(916) 488-3894

CC

Adam Randolph, Project Manager, City of Sacramento
Liz Bellas, Sacramento County Parks Department
SARA Board of Directors
SARA Advisory Board
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Jude Lamare

Recreational multi-use path along the Sacramento River.





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November 30, 2018

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300 Richards Boulevard
Sacramento, California 95811

Subject: Comments in response to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Two Rivers Trail Phase II project [CML-5002(155)]

Dear Mr. Buford and Mr. Randolph,

Habitat 2020 is a citizen coalition that works to protect the lands, waters, wildlife and native plants in the Sacramento region. It also serves as the Environmental Council of Sacramento's Habitat & Conservation committee. The great Central Valley of California has been identified by the World Wildlife Fund as one of North America's most endangered eco-regions. Preserving its remaining open space and agricultural land is essential for sustaining native plants and wildlife, and ensuring a high quality of life for ourselves and future generations. Members of Habitat 2020 include the Sacramento Audubon Society, California Native Plant Society, Friends of Swainson's Hawk, Save the American River Association, Save Our Sandhill Cranes, Sierra Club Mother Lode Chapter – Sacramento Group, Friends of Stone Lakes National Wildlife Refuge, the International Dark-Sky Association and the Sacramento Area Creeks Council.

The American River Parkway is a unique and singularly important riparian habitat corridor in the County of Sacramento and is a rare remaining remnant of what was once a much more extensive riparian ecosystem in northern California. Any project to construct facilities within the Parkway and to increase human activities in the Parkway has impacts on the wildlife, habitat and plants of this corridor. This project would create 3.4 miles of new Class 1 bicycle and pedestrian trail primarily along the waterside levee toe west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge. The trail would be 14-16 feet wide. As stated in the MND/IS, page 5, the project is proposed to be constructed largely in an area designated as "Protected Area" under the American River Parkway Plan, with habitat preservation and recreation-related activities being the primary uses. As stated on page 9, it is one of the objectives of the project to "Complete the project in a manner that minimizes environmental impacts to the

Parkway, given the proposed project's location within the environmentally sensitive Parkway."

Our comments on the MND/IS focus on the conservation of the Parkway as natural habitat. Moreover, we support the mission of the Save the American River Association (SARA) and endorse (and incorporate by reference into our comments) all comments made by SARA on this MND/IS. Likewise, we endorse and incorporate comments made by the Friends of the River Banks and the Friends of Sutter Landing Park.

The MND/IS fails to adequately consider the natural habitat corridor as an entity requiring protection from urban impacts by numerous local and state policies and plans (see comments by SARA). Instead, it treats the project as tiered from the General Plan Master EIR, requiring only compliance with the standards of this Master EIR, standards that apply to land use developments in the City of Sacramento. This is an error. Most of the trail is on land owned by entities other than the City of Sacramento and they generally are not subject to the land use authority of the City. The project is subject to approval by County Regional Parks Department and permits from California Fish and Wildlife. These agencies require a level of environmental review beyond an MND/IS tiered from a City General Plan Master EIR.

The impacts of the project on the natural habitat of the American River Parkway are not adequately described nor quantified in the MND/IS. See pp 36-37 in which the MND/IS discusses how the General Plan policies apply. In particular, we strongly object to the use of the General Plan policy (p. 37) to define adequate mitigation for Impact 4.3-7:

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. While this would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the 2035 General Plan. Given the extent of urban development designated in the 2035 General Plan, the preservation and/or restoration of riparian habitat would likely occur outside the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact. (Impact 4.3-7)

The mitigation proposed is likewise inadequately described and quantified, and will not mitigate impacts to less than significant because impacts are understated, mitigation ratios inadequate and inconsistent with City policy, off site mitigation will be permitted, and because compensatory habitat will not be required to be added to the Parkway area affected by the project.

EIR is Required

There are several controversial issues that merit analysis in a full EIR. The City should prepare and circulate an EIR that fully analyzes the alternatives, their impacts and how they would be mitigated. This is especially important because the environmental review must serve the needs of a number of other jurisdictions asked to issue permits or approvals for the project. Not the least of these is the owner of most of the land on which

the trail will be constructed: "A majority of the Project Area is owned by the Sacramento County Regional Parks" (p. V PHASE 1 ENVIRONMENTAL SITE ASSESSMENT Two Rivers Trail Project Phase II Sacramento, CA. OCTOBER 2018). Also the California Department of Fish and Wildlife is asked to issue permits for which environmental review is required.

a. The controversy over the location of the trail is an issue requiring a full EIR. The location at the toe of the levee has greater impacts on the natural environment of the Parkway than aligning the trail on top of the levee. Other sections of the American River Parkway both up and down stream are on the top of the levee. The MND/IS fails to explain why this section of the trail must be located off the top of the levee, especially since alternative routes exist in the case of an event that poses a serious conflict with levee maintenance activities. Yet the MND/IS assumes the alignment and does not consider alternatives and the variable impact of alternatives on the natural habitat corridor. The MND fails to consider the beneficial impacts to the natural habitat of locating the facility on the levee, and of aligning more of the trail outside the Parkway on city streets.

Page 5 of the MND explains the alignment choice:

"The Concept Plan Report discussed the development of a paved trail along the top of the American River south levee, including access to the landside street system and connections to other existing and proposed trails, which would minimize environmental impacts to the Parkway. However, in response to agency concerns regarding geotechnical stability of the levee and potential conflicts between trail users and levee maintenance equipment along with neighborhood concerns for homeowner privacy and visibility to the residences in the River Park neighborhood, a lower bench alignment mostly along the waterside toe of the easterly segment of the levee is now proposed. This alignment would separate the trail users from levee maintenance operations, limit visibility to neighboring residences on the landside of the levee and have little or no effect on levee stability. A mid-height bench alignment along the waterside levee slope of the entire length of the proposed trail segments was more recently considered in an attempt to minimize habitat impacts along the waterside toe of the levee and address concerns raised by residents of the River Park neighborhood. However, because the U.S. Army Corps of Engineers (USACE) considered placement of the trail on a mid-height bench on the waterside levee slope to be a risk to levee performance and would potentially increase the cost of levee operations and maintenance costs; the mid-levee alignment was determined to be infeasible where adequate space along the levee toe to accommodate the trail was present (James, Pers. Comm. 2018). " TWO RIVERS TRAIL – PHASE II (K15125000) INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

While this narrative explains that the City chose to realign the trail based on discussions with other agencies, it does not disclose the communications and analysis behind its discretionary choice. This issue of alignment deserves the full scrutiny of the EIR process.

b. The width of the trail is also a controversial issue, requiring alternatives analysis and a 30 day comment period. No consideration was given to narrow the trail to minimize impacts to the natural environment.

The MND says (p. 10):

"The proposed multi-use trail design would meet California Department of Transportation (Caltrans) Class 1 bikeway design criteria and would also be based on the State Water Code Title 23 standards for recreation trails on levees and the ARFCD Recreational Trails Policy (ARFCD 2002). The trail would generally consist of an 8-foot-wide paved path with a 2-foot-wide compacted shoulder on the inner side and a similar 6-foot-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail, bringing the total trail cross section along most of its length to 16 feet wide. However, due to space limitations in some locations, the waterside shoulder of the trail would be narrowed to 4 feet wide. The trail would be paved and engineered to be load-bearing (**Figure 4**). "

The Class 1 standard has proved appropriate in other sections of the trail located on top of the levee. However, the width of the trail is now much more damaging to the habitat of the Parkway since it has been moved from the top of the levee to the waterside toe. The required mowing and vegetation trimming (p. 17) within a four foot area on each side of the trail extends the width of the trail. The MND fails to fully disclose and analyze impacts and doesn't show how impacts can be mitigated to less than significant.

c. The MND lacks adequate analysis for increased impacts to the sensitive habitat and wildlife from additional recreation in close proximity to the toe of levee trail alignment in an area where the riparian habitat is quite narrow. The MND/IS does not disclose the area of habitat along the alignment and the percentage of the habitat area removed by segment.

d. The area is known nesting habitat for migratory raptors and the state listed Swainson's Hawk and the fully protected White Tailed Kite. Nesting sites have repeatedly been reported to California Fish and Wildlife by citizen scientist/observers. The MND does not identify the distance between the trail and the known nesting habitats, nor look at likely construction and maintenance mowing impacts on nesting behavior.

e. The MND misrepresents the applicable City Tree Ordinance, and uses an outdated standard for assessing impacts on trees protected by City ordinance (p. 38 "Protected Trees".) The environmental review should accurately explain the application of Chapter

12.56 (TREE PLANTING, MAINTENANCE, AND CONSERVATION of the Municipal Code) to the project, explain how the project will comply, quantify tree removal and pruning of various alternative alignments, and include the assessment of the City Urban Forester, so that decisionmakers can understand the impacts of the project on trees and how those impacts would be mitigated, and be assured that impacts will be mitigated to less than significant.

For public projects, the City Ordinance 12.56.040 (a) Removal of city trees, requires **"Whenever feasible, the city shall modify the design of public projects to avoid the removal or damage to city trees."** We believe this is the standard that should apply to the project for impacts to trees in the American River Parkway. This issue deserves full environmental review.

For removal of protected trees, the City Ordinance requires the 1:1 replace of inches at DSH (diameter at standard height) removed. A full EIR is needed to correctly identify all City protected trees to be removed (in all Segments) and to specify correctly the mitigation that has been approved by Sacramento Urban Forestry for issuance of permits.

f. The MND/IS a mitigation ratio of 1:1 for loss of riparian habitat is inadequate. A real effort should be made to acquire and convert adjacent ruderal land to riparian habitat to compensate for the impact of the trail on the existing habitat.

g. Off site mitigation and mitigation bank credits are not appropriate measures for the project impacts, and do not mitigate to less than significant. Impacts to the Parkway cannot be mitigated outside the Parkway.

The MND states:

"to compensate for the permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio (e.g., 1 acre planted for every 1 acre removed)."

Off site mitigation does not mitigate to less than significant. All mitigation for impacts on this narrow, rare strip of habitat should be located in the area of impact.

In addition, the mitigation measure fails to identify where the plantings would occur. However, the statement (p. 37) that mitigation would occur outside the City indicates the Project does not intend to mitigate in the City portion of the Parkway. Moreover, the MND does not require mitigation to occur in the American River Parkway.

Mitigation credits for off site replacement habitat are not appropriate for habitat mitigation for impacts in the American River Parkway which is a unique, highly valuable public asset that can not be mitigated elsewhere.

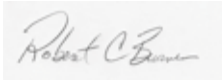
Mitigation should include the acquisition and restoration to habitat of lands in the adjacent Parkway that are not now managed as habitat. The City could cooperate with the Lower American River Conservancy to achieve this goal.

h. Why is construction staging to be conducted within the Parkway? These impacts can be avoided by locating staging outside the parkway. The large staging area in the Parkway adjacent to Glen Hall Park is inconsistent with the American River Parkway Plan and policies adopted by the City.

We request that the City draft and circulate a full EIR, considering alternatives to the project width and alignment, and significantly improving the mitigation measures for the project.

Please advise us of any further opportunities to comment on the project, to discuss the environmental review, and participate in any public hearings, through Matthew Baker, Land Use and Conservation Policy Director, habitat@ecosacramento.net, 916-202-9093.

Sincerely,



Rob Burness
Co-Chair, Habitat 2020



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Co-Chair, Habitat 2020



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November 30, 2018

SENT VIA EMAIL (tbuford@cityofsacramento.org)

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300 Richards Boulevard
Sacramento, CA 95811

**RE: Comments on the Initial Study/Mitigated Negative Declaration for the
Two Rivers Trail Phase II (K15125000)**

Dear Mr. Buford:

These comments on the Initial Study/Mitigated Negative Declaration (“MND”) for the Two Rivers Trail Phase II Project, K15125000 (“Project”) are submitted on behalf of Save Don’t Pave. Save Don’t Pave is an unincorporated association comprised of local community members who have serious concerns regarding the City of Sacramento’s (“City”) environmental review of the Project. Save Don’t Pave is working to save the section of the American River Parkway between Sutter’s Landing and the H Street Bridge as a natural recreation option for all to enjoy in its current unpaved state.¹

The MND fails to include relevant information and fully disclose Project impacts as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. [“CEQA”]). In particular, several potentially significant impacts are associated with the Project, necessitating preparation of an Environmental Impact Report (“EIR”) and consideration of a reasonable range of alternative and adequate mitigation to eliminate or reduce Project impacts. Thus, Save Don’t Pave respectfully requests that a

¹ Save Don’t Pave was formed when River Park residents and other users of the nearby section of Parkway learned of the City’s plan to pave the lower riverside toe of the levee. Many citizens were unaware of the City’s plans, so in January 2018, several concerned citizens organized a volunteer effort to go door to door in the River Park community to inform residents of the proposed project, get their opinions on the project, and collect signatures for a petition opposing the project. Since that time, Save Don’t Pave has collected over 1,200 petition signatures opposing the Project as presently proposed, and has worked to make the City aware of the special character and uses of this area that would be lost as a result of the Project.

full EIR be prepared and circulated for public review prior to any further proceedings by the City regarding the Project.

I. Standards Applicable to Negative Declarations

Under CEQA, an EIR is required whenever substantial evidence supports a “fair argument” that a proposed project may have a significant effect on the environment, even when other evidence supports a contrary conclusion. (See, e.g., *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 74 (*No Oil I*.) This “fair argument” standard creates a “low threshold” for requiring the preparation of an EIR. (*Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.) Thus, a project need not have an “important or momentous effect of semi-permanent duration” to require an EIR. (*No Oil I, supra*, 13 Cal.3d at 87.) Rather, an agency must prepare an EIR “whenever it perceives some substantial evidence that a project may have a significant effect environmentally.” (*Id.* at p. 85.) An EIR is required *even if* a different conclusion may also be supported by evidence.

To lawfully carry out a project based on a MND, a CEQA lead agency must approve mitigation measures sufficient to reduce potentially significant impacts “to a point where *clearly* no significant effects would occur.” (Cal. Code Regs. tit. 14 (“CEQA Guidelines”), § 15070, subd. (b)(1) (emphasis added).)² This is assured by incorporation into a Mitigation Monitoring and Reporting Plan (“MMRP”). (CEQA, § 21081.6(a)(1).) “The purpose of these requirements is to ensure that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then

² A lead agency may satisfy its CEQA obligations by preparing a MND instead of an EIR if: (1) revisions in the project would mitigate the effects of the proposed project to a point “where clearly no significant effects on the environment will occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” (Pub. Resources Code, § 21064.5.) The City must also adopt a legally adequate mitigation monitoring or reporting program in compliance with CEQA. (CEQA Guidelines, § 15074, subd. (d).) To comply with CEQA “[t]he reporting or monitoring program shall be designed to ensure compliance during project implementation.” (Pub. Resources Code, § 21081.6, subd. (a)(1); CEQA Guidelines, §§ 15074, subd. (d), 15097, subd. (a).) The City may not simply rely on a “summary” that merely relists the various mitigation measures in the absence of a discussion of implementation or evidence that the measures will be enforced.

neglected or disregarded.” (*Federation of Hillside & Canyon v. City of Los Angeles* (“Federation”) (2000) 83 Cal.App.4th 1252, 1261.)

Furthermore, an agency will not be allowed to hide behind its own failure to gather relevant data. Specifically, “deficiencies in the record [such as a deficient initial study] may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences.” (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311 (*Sundstrom*)). For example, in *Sundstrom* the court held that the absence of information explaining why no alternative sludge disposal site is available “permits the reasonable inference that sludge disposal presents a material environmental impact.” (*Ibid.*)

For each resource area discussed below, there is substantial evidence supporting a fair argument of a potentially significant impact. Moreover, the mitigation measures included are not legally adequate and do not sufficiently address the potential impacts. Therefore, an EIR is necessary in order to adequately analyze, disclose and mitigate the Project’s environmental impacts.

II. The MND Fails to Provide an Adequate Project Description and Environmental Setting

Although the Project description that CEQA requires of an MND is less detailed than that of an EIR, the MND must include a complete, accurate description of the Project. (CEQA Guidelines, § 15071.) An accurate, stable and finite project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645,655; *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 (*County of Inyo*) [“(a)n accurate, stable and finite project description is the Sine qua non of an informative and legally sufficient” CEQA document].) The court in *County of Inyo* explained why a thorough project description is necessary:

A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal’s benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the ‘no project’ alternative) and weigh other alternatives in the balance.

(*County of Inyo, supra*, 71 Cal.App.3d at 192-93.)

This MND fails to describe all elements of the Project. In particular, the MND fails to include a description of increased maintenance to clear mud and debris that would be needed if a trail is built on the water side of the levee toe due to the frequent flooding of the area. (See Exhibit A, Parkway User Testimony and Photographs Regarding Aesthetic Impacts, p. 10 [showing flooding of Project area] (“Testimony on Aesthetics”).) The MND also fails to discuss all of the likely uses of the Project in its description. The Project would build paved bike trails through the American River Parkway, with the implicit intention of those trails being used. However, accurate information about projected use of the new trail is not included. Such information would provide important insight into the full breadth of the Project and its potential impacts.

In addition, the Project diagrams fail to clearly disclose the proposed location of the Project in relation to existing natural resources and the levees that provide flood protection. (See MND, Figures 1–3.) The figures provided in the MND do not clearly depict the proposed trail Project in relation to other features in the Project area. For instance, existing walking trails are not shown, nor the location of the existing levees to the proposed Project. The Project in relation to the location of sensitive natural resources, such as Heritage trees and Valley elderberry bushes is also not shown, obscuring the Project description.

The MND also fails to disclose likely future actions that would stem from construction of the trail. For instance, the MND fails to acknowledge the potential for future and ongoing impacts to the biological resources through the implementation of Crime Prevention Through Environmental Design (“CPTED”). In CPTED, the City addresses recurring crime or illegal camping at a location by removing vegetation to make that area less attractive for crime or illegal camping. According to the Project website, “The Two Rivers trail will integrate concepts of crime prevention through environmental design (commonly abbreviated as CPTED). The enthusiastic usage of this reach will increase ‘eyes on the trail.’”³ The wooded riparian area along the Project area is extremely narrow, just 60 feet in some places, and any removal of vegetation would dramatically decrease the cover for wildlife and degrade the value of the area as a wildlife corridor. Furthermore, the use of CPTED in many areas would dramatically decrease the visual screen between the levee and the river, degrading the aesthetic value of the area both for users of the path and for boaters on the river.

³ Available at: <https://www.cityofsacramento.org/Public-Works/Engineering-Services/Projects/Current-Projects/Two-Rivers-Trail-Phase-II>.

Before the impacts of a project can be assessed and mitigation measures considered, an initial study must describe the existing environment. (CEQA Guidelines, § 15063, subd. (d)(2).) It is only against this baseline that any significant environmental effects can be determined. (CEQA Guidelines, §§ 15125, 15126.2, subd. (a); see also *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.) According to CEQA Guidelines section 15125, subdivision (a): “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published.” This same requirement applies to a Negative Declaration. (*Communities for a Better Environment v. SCAQMD* (2010) 48 Cal.4th 310, 319.) As the Supreme Court has explained, a comparison must be made between “existing physical conditions without the [project] and the conditions expected to be produced by the project. Without such a comparison, the EIR will not inform decision makers and the public of the project’s significant environmental impacts, as CEQA mandates.” (*Id.* at p. 328.)

The omission of critical setting information renders the MND deficient as a sufficiently informational document. Specific setting information deficiencies within resource sections of the MND are discussed below. Also, as mentioned above, the MND fails to include sufficiently detailed information regarding the proposed Project’s relationship to the location of other trails, levees, and sensitive natural resources, such as Heritage trees and Valley elderberry bushes, hindering analysis of Project impacts.

III. The MND’s Analysis of Potentially Significant Environmental Impacts is Defective and Mitigation Measures in the MND are Inadequate to Reduce Project Impacts to Less than Significant

The MND concludes without adequate explanation that there would be no impacts associated with Aesthetics, Energy, Noise, Public Services, Recreation or Transportation/Circulation that require mitigation. (MND, p. 103.) With respect to the impacts that the MND does conclude require mitigation, the MND also errs in providing the minimum analysis required by CEQA. Specific deficiencies are described below.

A. The Project Would Conflict with Existing Land Uses and Designations

Substantial evidence supports a fair argument that the Project conflicts with applicable land use policies, requiring preparation of an EIR. (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) 42 Cal.App.4th 608, 617–618 (*San Joaquin Raptor I*); *Stanislaus Audubon Society, Inc. v. County of Stanislaus*

(1995) 33 Cal.App.4th 144, 151; *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602–1603; see also CEQA Initial Study Checklist [CEQA Guidelines, appen. G, § IX, subd. (b)] [may project conflict “with any applicable land use plan, policy or regulation . . . adopted for the purpose of avoiding or mitigation an environmental effect.”].) The Project, which is proposed to be located within the American River Parkway, must conform with applicable plans.

The MND incorporates by reference and tiers off other planning documents including the 2035 General Plan Master EIR (“Master EIR”) (MND, p. 4), the American River Parkway Plan 2008 update (“Parkway Plan”) (MND, p. 5), and the Sacramento Bicycle Master Plan (“Master Plan”) (MND, p. 29). However, the Project, as currently proposed, conflicts with these documents. Substantial evidence supports a fair argument that the Project, proposed to be located within a specially protected area, conflicts with these applicable land use policies, and thus an EIR is required. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 931 (*Pocket Protectors*).)

1. MND Land Use Setting Discussion Is Incomplete

The MND fails to recognize the special status of the American River Parkway. The Parkway is protected by the American River Parkway Plan and is a federal and state designated Wild and Scenic River.⁴ Furthermore, in 2017, the American River Parkway attained state conservancy status. (Pub. Resources Code, § 5845 et seq. [creating Lower American River Conservancy Program].) Each of these designations come with protections and considerations, and further cement the American River’s regional importance. The Land Use setting discussion, should have, but does not describe these protections.

2. The Project Is Inconsistent with the City of Sacramento General Plan

The Master EIR concluded that policies in the City’s General Plan, combined with compliance with the California Endangered Species Act (“CESA”), Natomas Basin Habitat Conservation Plan (“NBHCP”) and CEQA would minimize the impacts on special-status species to a less-than-significant level. (See Master EIR, pp. 4.3-10 to 4.3-17.) However, the Master EIR contemplated impacts resulting from a trail at the crown

⁴ Pub. Resources Code, § 5093.54, subd. (e) (state designation) and 16 U.S. Code § 1274, subd. (a)(21) (federal designation); see also American River Parkway Plan, pp. 9, 89–92.

of the levee both by relying on the American River Parkway Plan and considering completion of the Project in 2014. (See Master EIR, pp. 2-36, 4.3-19.)

Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources. (Master EIR, p. 4.3-7.) The Project would encroach on valuable riparian habitat, protected trees, and special status species habitat. (MND, pp. 39-43.) As discussed below, the MND underestimates many of the Project's potential biological impacts despite evidence to the contrary submitted herein. The Project's impacts on the riparian resources of the American River Parkway violate Policy ER 2.1.5.

3. The Project Is Inconsistent with the American River Parkway Plan 2008 Update

The MND incorrectly asserts that the Project is consistent with the Parkway Plan, despite the Project's fundamental conflicts with the Parkway Plan policies. (MND, p. 5; see Exhibit L, Two Rivers Trail Phase II: Inconsistencies with the American River Parkway Plan ("Parkway Plan Inconsistencies").) First and foremost is the inconsistency between the Project's trail design and Parkway Plan policy 10.4.2. Policy 10.4.2 requires the Two Rivers Trail extension to be constructed on top of the levee where feasible. (Parkway Plan, p. 38.) The Project wholly discounts the possibility of a levee crown trail with a vague explanation of geotechnical, maintenance, and neighborhood concerns. (MND, p. 5.)

The MND does not further discuss or ever actually analyze the feasibility of a top of levee trail alignment for the Project. As can be seen from the photo below, much of the Parkway bike trail is already located on top of the levees. The feasibility of placing the trail Project on the levee, or other less environmentally damaging alternatives, must be fully considered.

*Recreational multi-use path along the
Sacramento River.*



(City of Sacramento General Plan, p. 2-266.)

Paradise Beach, designated as a “Protected Area” under the Parkway Plan (Parkway Plan, p. 164), makes up a significant portion of the project area. (MND, p. 5, 10, 21.) Protected areas “contain tracts of natural occurring vegetation and wildlife . . . [which] would be easily disturbed by heavy use.” (Parkway Plan, p. 117.) Protected areas should only have “minor trail improvements, trail stops [and] observation points” to prevent encroachment into sensitive natural communities. (*Ibid.*) More specifically to Paradise Beach, the Parkway Plan cautions against the development of “[p]ermanent structures and any other physical changes that would attract groups of users” due to limited access, annual flooding, and unstable soil. (*Id.* at 164.) Paradise Beach “should remain an informal recreation area” to preserve existing uses and prevent further degradation. (*Ibid.*) The Project would flout each of these requirements by encroaching onto natural communities (see MND, pp. 39-43) and bringing substantially more visitors to the Paradise Beach area (see MND, p. 86).

The Project is also inconsistent with the Parkway Plan’s goal to “provide, protect, and enhance for public use” the American River greenbelt. (Parkway Plan, p. 10.) The Project would prioritize a single use, bicycle transportation, at the expense of numerous existing uses, such as dog-walking, family recreation, family recreation. Notably, improving transportation is not included as a Parkway Plan goal. (Parkway Plan, p. 10.) The Project would not “preserve, protect [or] improve the natural, archaeological, historical and recreational resources of the Parkway” but instead encroach on and impact

these resources. The design and site decisions for the Project create irreconcilable conflicts with the Parkway Plan, which the MND does not disclose or mitigate.

Substantial evidence supports a fair argument that the Project is inconsistent with the Parkway Plan's goals and policies. (See also Exhibit L, Parkway Plan Inconsistencies.) Therefore, an EIR is required to disclose and analyze these land use inconsistencies. (*Pocket Protectors, supra*, 124 Cal.App.4th at 931.)

4. *The Project Is Inconsistent with the Sacramento Bicycle Master Plan*

The Master Plan “set[s] forth bicycle related investments, policies, programs, and strategies[.]” (Master Plan, p. 1.) One goal of the Master Plan is increasing equitable investments in bicycling facilities for all neighborhoods by 2020. (Master Plan, p. 2.) According to testimony by Jim Brown, of SABA, at the October 18, 2018, meeting of the Sacramento Active Transportation Advisory Committee, many of “projects in the [Bicycle Master] Plan [have been in the Plan] for years and years.” (See Sacramento Active Transportation Commission video, time register approximately 42 minutes).⁵ Despite this goal, the Project would devote considerable resources to serve one of the least disadvantaged areas of the City in terms of bicycle facilities.

The Master Plan identifies East Sacramento as well served by existing bicycling infrastructure. (Master Plan, p. 32 [Equity Analysis Composite Index]; see also Exhibit D, Master Plan Excerpt.) Yet, this \$6.4 million project, which duplicates a world-class bicycle trail that already exists on the north side of the American River, and for which an on-road alternative route already exists that was recently built on Elvas Avenue, uses limited active transportation funds. (See Exhibit D, Master Plan Excerpt [Class II trail on Elvas Avenue].) Many areas in the City are substantially less served by existing bicycle infrastructure than the Project area, and these resources would be better served there. (*Ibid.*) Devoting such considerable resources to this Project would be contrary to the Master Plan's equity goals.

B. The Project May Have Potentially Significant Aesthetics Impacts

“Relevant personal observations of area residents on nontechnical subjects may qualify as substantial evidence for a fair argument. (*Pocket Protectors, supra*, 124 Cal.App.4th at 928, 931.) “[T]he opinions of area residents, if based on direct

⁵ Available at: http://sacramento.granicus.com/MediaPlayer.php?clip_id=4274.

observation, may be relevant as to aesthetic impact and may constitute substantial evidence in support of a fair argument; no special expertise is required on this topic.” (*Id.* at 937.) The concerns and observations regarding the “overall degradation of the existing visual character of the [project] site” can constitute substantial evidence sufficient to raise a fair argument of aesthetic impacts. (*Ibid.*)

Here, Parkway users have significant concerns regarding how the Project would impact the existing visual character of the American River Parkway. (See Exhibit A, Testimony on Aesthetics, pp. 1, 4-7.) Parkway users state that the Project “would drastically change the nature of th[e] trail and degrade . . . this special area. (*Id.* at p. 1.) Clearing the existing trail and vegetation to create the paved trail would “affect the immediate viewshed and the natural experience [it] affords” and the paved trail “would be more naked and hardened[.]” (*Id.* at p. 4.) “Paving th[e] trail will substantially damage scenic resources, including not only the endangered elderberries scattered along the trail and the . . . creatures that feed on them, but also disturb[] the entire ecosystem.” (*Id.* at p. 6.) “[V]isual encounters with nature bring daily peace to all who have access to [the Parkway]” and the Project’s alignment and design directly threaten that scenic resource. (*Ibid.*)

The Project area currently primarily exists in a natural state, including native and non-native trees and shrubs, sand, dirt, brush, habitat and other natural features unique to a riparian area. (MND, p. 21.) In comparison, the Project would be comprised of wide asphalt paths, flanked by decomposed granite, ranging from 14 to 22 feet. (MND, p. 9-10.) Residents who neighbor and frequent the Project area consider these changes to be a substantial degradation of the existing aesthetic character of the Project area. (See Exhibit A, Testimony on Aesthetics, pp. 1, 4-7.)

A comparison of trail sections from Phase I of the Project and the current Project area exemplify the stark aesthetic changes that would result from a change to a Class 1 bicycle trail:



(Exhibit A, Testimony on Aesthetics, p. 2.) As can be seen in the photos provided in Exhibit A, the Project area is currently characterized by a dirt trail, which is very narrow at times, adjacent to and overhung by riparian vegetation and trees; this vegetation provides shade and the experience of being in nature for those who use the area. If the planned vegetation removal takes place (MND, pp. 17, 38-39, 41), much of this area would no longer be shaded and the wider trail, which in narrow sections of the lower bench would remove all vegetation on the lower toe, would feel and function much more like a transportation corridor. Parkway users have explained these changes would essentially destroy the characteristics of the area that create its aesthetic value. “The walking experience on [the existing] trail is like no other experience . . . in Sacramento To pave it is to lose this experience forever.” (Exhibit A, Testimony on Aesthetics, p. 3.)

The impacted residents’ concerns, along with the differences in aesthetic character between the proposed Project and existing conditions, constitute substantial evidence of a fair argument the Project may have significant aesthetic impacts. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 937–939.) Therefore, an EIR for the Project must be completed to fully evaluate the Project’s aesthetic impacts and consider all of the relevant evidence.

C. The Project May Have Significant Impacts on Recreation

Recreational impacts are another non-technical subject area wherein local residents’ concerns and observations can provide substantial evidence of a fair argument. (See *Pocket Protectors*, *supra*, 124 Cal.App.4th at 937-939.) Here, similar to aesthetics, Parkway users who neighbor and frequent the Project area are concerned over drastic

changes in recreational opportunities that would occur if the Project was constructed. (Exhibit A, Testimony on Aesthetics, pp. 1, 6–7.)

1. The MND Fails to Disclose Baseline Recreational Use of the Project Area

The MND presents a truncated and incomplete description of baseline recreational use of the Project area, hindering analysis of the Project’s impacts on recreation. (MND, p. 85.) In particular, the MND fails to describe the existing heavy pedestrian use of the Project area.

In order to help determine baseline use of the area of the area adjacent to the Glen Hall access to Paradise Beach (Segment 5; MND, Figure 3), Save Don’t Pave members collected data using volunteers starting on May 29, 2018 and ending on August 17, 2018. This data is compiled in Exhibit C, Baseline Recreational Use Data. To prepare for data collection, volunteers were provided with on site training regarding the different categories of data being collected and the optimal location for viewing use of Segment 5 of the Project area. Observation shifts lasted for no more than two hours. Shifts were scheduled to cover all daylight hours for one weekday and one weekend day, however they were not completed all on one day, but rather staggered over a few months as volunteer time allowed. Data was collected over a total of 8 weekday shifts, covering the hours from 5:30 a.m. to 9 p.m., and a total of 7 weekend day shifts, covering the hours from 5:30 a.m. to 7:30 p.m. Volunteers were set up facing the levee, and were instructed to categorize users as either: (1) primarily using the top of the levee; (2) primarily using the bottom of the levee; or (3) cross traffic (crossing the bottom of the levee to access the river area). Individual user types were categorized as Adult Pedestrians, Pedestrians appearing to be under 12 years old, Dogs, Runners/Joggers, Bikers, or Other. Survey results are compiled in Exhibit C, Baseline Recreational Use Data.

During the weekday observation shifts, Exhibit C, Baseline Recreational Use Data, depicts that volunteers observed a total of 207 individual users may, in a single day, utilize the top of the levee. 201 individual users may utilize the bottom of the levee, and 667 individual users may cross the lower levee trail. During weekend day shifts, volunteers observed that in a single day, a total of 342 individual users may be on the top of the levee, 286 individual users may be at the bottom of the levee, and 1,365 individual

users crossing the lower levee trail.⁶ This survey data shows that this area of the Parkway is heavily used on both weekdays and weekends by a variety of recreational uses. These uses should have, but were not, considered in the MND's analysis of recreational or other impacts, as described in this comment letter.

2. *The MND Fails to Disclose the Project's Potentially Significant Recreational Impacts*

The MND relies on a false premise for its recreation impacts analysis: that the Project would "expand recreational opportunities . . . by offering a paved multi-use trail." (MND, p. 86.) In fact, the Project would expand one recreational opportunity, biking, at the expense of the existing uses valued by local residents. Just because the City considers these uses to be "informal" (MND, p. 86) does not mean these uses are not worthy of consideration in the MND (see Parkway Plan, p. 164 [as a Protected Area, Paradise Beach should remain an "informal recreation area" to preserve existing uses]).

The MND also fails to consider the potential conflict between recreational uses due to the Project. The Project would introduce new users, and a new use, to the Project area, competing for space. Cyclist use of the trail would be incompatible with existing uses and takes up considerable space. Existing uses would be relegated to a trail shoulder, which would be restricted due to space limitations. (MND, p. 86 [gravel shoulders would be downsized when toe space is limited].) The paved trail would not be limited in such a way. (*Ibid.*) Instead of "taking a leisurely walk along a quiet path thick with wildlife," pedestrians would be forced to be on the lookout for commuting bikers. (Exhibit A, Testimony on Aesthetics, p. 1.) According to the Baseline Recreational Use Data, 1,565 users may attempt to cross the proposed bike path on a weekend day. (See Exhibit C.) Moreover, increasing the number of users in the Project area could accelerate or cause substantial deterioration of the existing recreation facilities, but the MND does not consider this impact.

The aesthetic character of the Project area is a recreational feature as well, and is the primary draw for many users. (Exhibit A, Testimony on Aesthetics, pp. 1-7.) Existing users interact with and appreciate the natural riparian habitat. In a survey conducted by Save Don't Pave of 137 local residents asking about their use of the Project area, over 75 percent cited the natural condition of the area as a principal draw. (Exhibit

⁶ It should be noted that the weekday data includes a shift from 7:30 p.m. to 9 p.m. that is not included in the weekend day data, so likely the weekend day totals would have been even higher than weekday totals if the shifts had covered equal time.

B, Survey of American River Parkway Trail Users (June-Oct. 2018), pp. 2-3 (“Parkway User Survey”).) Bird watching and other recreation involving native species would also be impacted, given the Projects impacts to species habitat. (MND, pp. 40-43.) In order to construct and maintain a 14 to 22-foot trail, many of the natural elements that are the defining characteristics of this existing recreational facility would be significantly impacted. (See MND, p. 39.) Yet the MND does not consider the loss of scenic enjoyment as a loss of recreational opportunity, though the Project would drastically change the character of the area.

Pedestrians currently use the existing trails and frequent the Project area largely because of its unpaved, natural, and riparian character. (Exhibit A, Testimony on Aesthetics, pp. 1-7; Exhibit B, Parkway User Survey, pp. 2-3.) Increased use of a paved trail for recreation and commuting by cyclists would displace at least of portion of these users and thus would cause a substantial physical deterioration of the existing recreational facilities for those users. The Parkway users’ concerns and the Project’s incompatibility with existing uses constitute substantial evidence supporting a fair argument the Project would have significant recreational impacts. For this reason, an EIR is required to fully evaluate how, and to what extent, existing uses would be impacted.

D. The Project May Have Significant Air Quality Impacts

The MND concludes that the Project would not result in any significant air quality impacts and no mitigation is required. (MND, p. 23.) The MND fails to account for impacts associated with maintenance of the Project in areas that frequently flood on the water side of the levee. (See, e.g., Exhibit A, Testimony on Aesthetics, p. 9 [showing flooding, which is frequent in winter].) In addition, though recognizing the expected increase in usage of the area (MND, p. 90) and shortage of parking at Glenn Hall Park (MND, p. 85; ARPP, p. 164), the MND fails to address increased vehicular air emissions and other impacts from Parkway users searching for parking. All of the air quality impacts of the Project, including emissions during operations, must be adequately disclosed before any action on the Project is taken.

E. The Project May have Significant Impacts on Biological Resources

The MND recognizes that the Project would have some impacts on protected species and their habitats in the Project area (MND, p. 31), and included corresponding mitigation measures to allegedly lessen those impacts to below significant levels (MND, pp. 44-52). The Valley Elderberry Longhorn Beetle (“VELB”) and protected trees in the Project area would be particularly impacted by the Project’s construction and operation.

(MND, pp. 38-41.) Contrary to the MND's conclusions, impacts on biological resources may be significant, and alternatives and mitigation measures to avoid or reduce those impacts were not properly considered.

1. *MND's Description of Biological Resource Setting is Inadequate*

The MND fails to disclose that early specimens used to describe this species were collected from the area (U.S. Fish and Wildlife Service 1984). When the VELB was listed as a threatened species under the federal endangered species act by the US Fish and Wildlife Service in 1980 VELB was known from only 10 locations, and this stretch of the American River was one of them (U.S. Fish and Wildlife Service 1984). Currently, portions of the American River Parkway are thought to support some of the most dense populations of VELB known to occur (Talley et al 2007.) The MND fails to describe the importance of the Two Rivers Phase II project area to VELB. Without this perspective, the MND fails to provide a meaningful evaluation of the significance of Project impacts and the adequacy of proposed mitigation.

2. *Significant Impacts to VELB and VELB Habitat*

VELB is a listed as a threatened species under the Federal Endangered Species Act. (MND, p. 35.) The Project area is abundant within the Project area, and evidence indicates a VELB presence as well. (MND, p. 38.) The Project would impact a large number of elderberry shrubs in this important area for VELB. (MND, p. 38.) For Sections 1 and 2 of the proposed Project, the preferred Alternative 1 would have a more severe impact than Alternative 2, 22 permanent removals of bushes demonstrating VELB presence. (MND, p. 32.) The MND does not discuss why Alternative 1, despite having a more significant impact on VELB habitat, is the preferred alternative, or why Alternative 2 is infeasible. Nor does the MND properly consider other alternative siting to avoid or reduce VELB impacts.

In addition, it appears that the MND may underestimate the number of elderberry shrubs that could be impacted by the proposed Project. The U.S. Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle ("FWS Framework") and the MND both state that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. (Exhibit E, FWS Framework, pp. 9-10, 14; MND, p. 9.) The FWS Framework also states that, "Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity." (Exhibit E, FWS Framework, p. 11.) Surveys for

elderberry shrubs in the Project area found a total of 501 elderberry shrubs within 165 feet of the Project footprint. (MND, p. 39.) However, the MND reports that only some (i.e. 43- 51 shrubs that would be permanently removed and 56 that would be trimmed) of the 501 elderberry shrubs that would be impacted by the project. (MND, p. 39.) The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. The MND should have included an analysis about why elderberry shrubs that could be impacted (i.e. are located within 165 feet of the project or where paving will occur within 20 feet of a shrub) would not be affected by the Project.

The MND also likely underestimates the impacts to VELB for Segments 1 and 2 of the proposed Project. Because there is currently no funding for these segments and because a preferred alignment has not yet been selected, there would likely be a number of years before these segments can be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is inappropriate to estimate VELB impacts for Segments 1 and 2 at this time.

The MND indicates that mitigation for impacts to VELB would be accomplished by purchasing credits from an unspecified mitigation bank. (MND, p. 43.) Yet the FWS Framework emphasizes the importance of keeping mitigation close to the site of impact. (Exhibit E, FWS Framework, p. 12.) The Framework also recommends making purchases at a 3:1 ratio for disturbed riparian habitat. (Exhibit E, FWS Framework, p. 14.) The MND, in comparison, specifically calls for off-site credit purchases, and only at a 1:1 ratio despite that riparian habitat would be permanently impacted. (MND, p. 46.)

In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that would be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if, “1) the planting location is suitable for elderberry growth and reproduction; and 2) the City is able to protect the shrub and ensure that the shrub becomes reestablished.” (MND, p. 49.) In fact, many places in the roughly one mile extending east from the I-80 bridge where plantings and relocations could be critical in closing gaps in elderberry extent and VELB habitat connectivity. The MND does not provide any assessment of whether these criteria may be met by selecting sites in close proximity to the impacted habitat. VELB is patchily distributed within riparian habitat and thus mitigation must be implemented to prevent habitat fragmentation that adversely affects VELB breeding, foraging and dispersal. (Exhibit E, FWS Framework, p. 8-9.) Given the large number of shrubs the Project would impact, and the uncertainty about where shrubs would be transplanted and where mitigation would take place, it is not clear whether impacts to VELB would be mitigated to a less than significant level.

Mitigation Measure 3-6 proposes to compensate for the permanent removal of riparian vegetation by purchasing off-site credits at a mitigation bank or replanting riparian trees and shrubs at a 1:1 ratio. Although this may be consistent with the City's General Plan policies, this ratio of compensation is below recommendations for mitigating for impacts to riparian habitat. (See Exhibit E, FWS Framework, p. 14.) The MND should include mitigation measures consistent with VELB-specific recommendations by other government agencies.

3. *Significant Impacts to Protected Trees*

Construction of the proposed trail would result in the removal of numerous trees. (MND, p. 35.) The Project would also adversely affect trees by requiring tree trimming for equipment access and conducting ground-disturbing activities within the dripline of protected trees. (*Ibid.*) The MND admits that the impacts to protected trees would be significant. (MND, p. 38.) However, the existing mitigation measures are inadequate and have significant blind spots that limit their effectiveness. Given the potentially significant impacts, the City Arborist should be involved throughout the construction process, or a consulting arborist should be on the Project team.

The number of trees removed and trimmed within Segments 1-2 is not disclosed in the MND. These Segments would be constructed in the future; therefore, the current size of trees and portions of trees overhanging the project footprint may differ from current conditions. This problem also relates back to the connectivity issue for bike trails: if Segments 1-2 have no construction plan, then this really is a "trail to nowhere" and does not provide connectivity.

The trees within Segments 1-2 are within riparian habitat and co-occur with elderberry shrubs. Segments 3-6 of the proposed Project would permanently affect (remove) 22 trees and temporarily affect (trim) approximately 72 additional trees located within the project footprint. (MND, p. 38.) Each tree proposed for removal should be inventoried by a consulting arborist.

All trees identified for removal are located within the valley foothill riparian vegetation community. (MND, p. 38.) The MND states that of the trees to be removed, four trees are protected under the City's Heritage Tree Ordinance, citing City of

Sacramento Municipal Code 12.64.020. (MND, p. 38.) In fact, this Ordinance has been repealed and replaced so this entire analysis in the MND is based on superseded law.⁷

Current Sacramento City Code section 12.56.040 requires modification “of public projects to avoid the removal or damage to city trees.” The MND makes no attempt to explain how the Project complies with this code section, as it relies on the prior version of the City Tree Ordinance. The Project design and alignment does not reflect any consideration for avoiding the removal or damage to City trees.

The City’s heritage tree ordinance protects trees of any species with a circumference of 100 inches or more; California native oak, buckeye, and sycamore trees with a circumference of 36 inches or greater; and/or trees of any species with a circumference of 36 inches or greater in a riparian zone. (See Exhibit F, Tree Permits & Ordinances Webpage.)⁸ The Project area includes trees that are covered by the new ordinance, including two black locust trees (with DBHs of 50 inches and 45 inches), one cork oak (DBH of 40 inches), and one Fremont cottonwood (DBH of 50 inches). (MND, p. 38.) The MND fails to analyze protected tree removal under the ordinance that applies to the Project and must be corrected.

During operations and maintenance, dead, dying, and hazard trees may be trimmed or removed. (MND, p. 38.) Dead and dying trees provide critical habitat for birds and other wildlife. Removal of such habitat could pose a potentially significant impact to protected species habitats. Thus, any proposed removal should be done under the stewardship of a wildlife/bird naturalist.

The MND claims that Heritage trees and other trees identified for removal within the Project footprint are owned by the City of Sacramento. (MND, p. 38.) This assertion is not necessarily true. The ownership map developed by the Lower American River Conservancy shows this land as being County owned. (See Exhibit G, Boundary and

⁷ Sacramento City Code 12.56 was amended and adopted by Sacramento City Council on August 4, 2016. The new tree ordinance amends section 2.62.030 & 8.04.100, and deletes chapter 12.60 & 12.64 of the Sacramento City Code, related to trees.

⁸ Available at <https://www.cityofsacramento.org/Public-Works/Maintenance-Services/Trees/Permits-Ordinances>. While the Project trees are not City trees, per se, the intent to require modification in order to avoid removal or damage to trees in City projects is implied.

Ownership Map, p. 1.)⁹ This is why an agreement between the City and County is required to build and operate the trail. (See MND, p. 18.) Conflicts over tree removal and County property can only be resolved if the City prepares a full EIR.

4. *Mitigation for Potentially Significant Biological Impacts is Inadequate*

The following mitigation measures in the MND are inadequate, as described below.

Mitigation Measure 3-1: Conduct Worker Environmental Awareness Training Program Regarding Special-status Species and Sensitive Habitats prior to Construction.

Comment: This mitigation measure should include education on tree survival needs.

Mitigation Measure 3-2: Install Temporary Fencing Around Environmentally Sensitive Habitat Before any ground-disturbing activity occurs within the project footprint, the City shall ensure that temporary construction barrier fencing, silt fencing, and/or flagging is installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests to be avoided), as appropriate. Construction/maintenance personnel and construction/maintenance activity shall avoid fenced environmentally sensitive areas. The exact location of the fencing and/or flagging shall be determined by the resident engineer coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. No ground disturbance or vegetation removal activity shall be allowed until this condition is satisfied. The fencing/flagging shall be checked regularly and maintained until all work is complete. For construction, any required barrier or sediment fencing and a note reflecting this condition shall be shown on the final construction documents.

Comment: In order to preserve trees during and after construction, fencing location needs to be determined with consultation of a trained arborist. That is not included in this mitigation measure.

Mitigation Measure 3-4: Return Temporarily Disturbed Areas to Pre-Project Conditions
All temporarily disturbed areas shall be returned to pre-project conditions within one year following completion of construction/maintenance. These areas shall be properly

⁹ Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=154999>.

protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Comment: In order to preserve trees during and after construction, any activity within the trees' driplines needs to be determined with consultation of a trained arborist. That is not included in this mitigation measure.

Mitigation Measure 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees In accordance with policies stated in the City's General Plan, to compensate for the permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio (e.g., 1 acre planted for every 1 acre removed) ... If an onsite or offsite City-responsible mitigation site is used, the City shall accomplish riparian habitat compensation by implementing the following: after completion of the trail design, the City shall total the number, type, and size of all trees and shrubs to be removed and prepare a planting plan that identifies the location of the riparian mitigation plantings and the number, type, and size of plants ... The City will be responsible for planting, replanting, watering, weeding, invasive exotic eradication, and any other practice needed to ensure this goal ... To ensure success of the mitigation plantings, the City shall prepare and implement an adaptive management plan that identifies specific monitoring tasks, success criteria, and reporting requirements. If mitigation bank credits are purchased, the credits must be purchased at a CDFW-approved site.

Comment: As discussed above, the 1:1 mitigation ration is not adequate to protect VELB in the Project area. Additionally, a 1:1 mitigation ratio does not account for any replacement or replanting failures. Potential off-site mitigation sites are not described in the MND. In order to protect the Parkway, mitigation should occur within the Parkway, not in other regions. Lastly, it is not evident from the MND whether the costs of this mitigation measure – which have been estimated to be over \$1 million – is covered by the Project budget.

Mitigation Measure 3-7: Monitor During Ground Disturbance and Vegetation Removal A qualified biological monitor shall be present during all project activities requiring ground disturbance or vegetation removal within the construction area and shall make weekly monitoring visits to construction/active maintenance areas occurring in or adjacent to environmentally sensitive habitat areas, (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests) ...

Comment: As with other mitigation measures, the inclusion of the City arborist or a contracted arborist is critical for any measure that could result in harm to protected trees.

F. The Project would Result in Potentially Significant Cultural Resources Impacts

The MND recognizes that built environmental resources and archeological resources exist in the Project area. (MND, pp. 56-57.) According to the MND:

Levee Unit 118 Part 1 (American River South Levee) is considered significant under National Register of Historic Places Criterion A within the context of flood management and for its association with the SRFCP... Levee Unit 118 Part 1 is also considered to be a historical resource for the purposes of CEQA.

(*Ibid.*) Segment 4 of the trail Project, which is approximately 0.25 miles long, “would be constructed on the water side slope on an artificial bench offset from the top of the levee” and “include a small retaining wall along the inner edge of the trail.” (MND, pp. 9-10.) The MND’s conclusion that the proposed Project “would not alter the character-defining features of the levee” (MND, p. 56) is incorrect at least as to Segment 4, which would alter the character of Levee Unit 118 Part 1. The MND fails to address this potentially significant effect. Moreover, the failure to adequately depict the Project within its cultural setting in readily understandable figures within the MND renders the MND deficient as an informational document.

G. The MND Ignores Past Geotechnical Issues in the Project Area its Geology and Soils Analysis

The MND does not provide any analysis regarding potential erosion at the Project site, and instead makes a blanket assertion that City Standard Construction Specifications will be sufficient to avoid significant impacts. (MND, p. 67.) This lack of analysis ignores potentially significant impacts that can occur despite following relevant codes and standards.

Recent experience provides showcases this shortsighted approach. Phase I of the Two Rivers Trail project encountered geotechnical issues, which led to change orders costing over three hundred thousand dollars. According to a January 9, 2007 City of Sacramento staff report to City Council regarding Phase I construction costs:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

(Exhibit H, Two Rivers Trail Phase I Staff Report, January 9, 2007, p. 2.)

The MND states that:

Because the design, construction, and maintenance of levee improvements must comply with the regulatory standards of USACE and CVFPB, it is assumed that the design and construction of all levee modifications to accommodate placement of the trail would meet or exceed applicable design standards for static and dynamic stability, seismic ground shaking, liquefaction, subsidence, and seepage.

(MND, p. 67.) Given the City's experience with Phase I, geotechnical evaluations should be completed as part of the overall environmental analysis in order to evaluate the cost and feasibility of meeting these standards and to adequately evaluate impacts. Mitigation Measure 6-1 impermissibly defers mitigation by delaying the preparation of a final geotechnical investigation of the Project, until after Project approval.

H. The Project would Result in Potentially Significant Hazards Impacts

1. The MND's Hazards Environmental Setting Omits Crucial Details Necessary to Understand the Project's Potential Impacts

The environmental setting under the MND hazards section is lacking in critical information. (MND, p. 69.) While the MND notes that the Project area for trail segments 1 and 2 were historically used for waste disposal, no further detail is given. (*Ibid.*) Instead, the MND refers readers to the Phase I Environmental Site Assessment for "additional details." (*Ibid.*) A description of this potential impact must be included in the MND. The hazards section environmental setting also does not provide any relevant information regarding the alternative routes in Segments 1 and 2. The biological resource section differentiated between elderberry bush impacts based on trail alignment (see MND, p. 39); if such differences exist between the two trail alignments with respect to potential hazard impacts, that should be disclosed in the MND. Given that Mitigation Measure 7-1 only applies if the preferred alternative is selected, it appears that there are

some differences based on potential trail alignment. (See MND, p. 71.) More information is therefore needed regarding hazards in the segments 1 and 2 Project area.

I. Hydrology and Water Quality Impacts are Potentially Significant

1. *The MND Fails to Provide an Accurate Description of Baseline Hydrological Conditions*

According to local residents familiar with the Project area, the path at the toe of the levee can become submerged when the river is high, sometimes for multiple weeks in recent years. (See, e.g., Exhibit A, Testimony on Aesthetics, p. 10.) The MND does not disclose or analyze this possibility, despite the fact the Project trail would be paved right through flood-prone segments of the south bank. This flood-risk also comes with several potential impacts, including increased trail maintenance to clear mud and debris, increased repairs, which increases air pollution. The MND does not contemplate such a possibility, let alone analyze the resulting impacts.

2. *The Trail Alignment Would Pose a Potentially Significant Flood Risk*

The MND hydrology and water quality section takes a truncated view of the Project's potential impacts, omitting discussion of entire potentially significant impacts. The MND only acknowledges potential runoff of contaminants during construction activities, caused by erosion and storm water runoff. (MND, p. 74.) However, the MND ignores how the Project's trail alignment would expose the Project, nearby residents, and visitors to potentially significant flood risk.

The Project trail alignment was developed both after the Parkway Plan and the Two Rivers Trail Concept Plan ("Concept Plan"). (See MND, p. 5.) As the MND acknowledges, the mid-levee "bench" alignment would pose a risk to levee performance. (MND, p. 5.) Despite this concern, the Project opts for a mid-levee alignment for Segment 4 of the trail. (MND, pp. 9-10.) The MND does not reconcile the potential to impact levee integrity or maintenance with the decision to use the mid-levee alignment. The MND itself contains evidence of a fair argument of a potentially significant flood impact.

Moreover, the Lower American River Task Force ("Task Force") has identified four segments of the American River's south bank, all in the Project area, as "immediate threat[s] of failure[.]" (See Exhibit I, Lower American River Task Force, Bank

Protection Working Group, March 13, 2018 Update [“Task Force Presentation”], pp. 9, 11.) The MND fails to analysis these existing conditions and the Project’s effect on them. Some grading activity will occur in segments 5 and 6, which directly overlap the segments the Task Force identified. (See MND, p. 10.)

3. *The MND Fails to Consider the Potential Water Quality Impact of Increased Fecal Coliform*

The Project would increase visitors to the American River Parkway (see, e.g., MND, p. 90), but does not include additional restroom facilities, nor additional trash receptacles. This increase in visitors can be expected to result in an increase in human and dog feces in the area along the trail. Yet, the MND considers only those impacts related to construction and fails to consider any impacts related to increased contamination from feces from humans or dogs. (See MND, p. 74.)

As the new trail would be on the river-side of the levee, any rain event would mobilize fecal contamination into the river. Dog waste is a significant cause of storm water pollution, and particularly, elevated levels of fecal coliform bacteria. (See Exhibit J, *Microbes and Urban Watersheds: Concentrations, Sources, & Pathways*, pp. 69-70.) While the Water Quality Control Plan for the Sacramento River and San Joaquin River basins limits fecal coliform levels to not exceeding 200 colonies per 100 mL for the geometric mean of five samples taken over a 30 day period, storm water runoff in urban areas can have levels of 15,000 or even 22,000 colonies per 100 mL. (*Id.* at 70.) Just one gram of dog feces is estimated to contain 23 million fecal coliform bacteria. (*Id.* at 74.) During storms or floods, contaminated water would drain directly into the American River without any treatment.

The Project does not include additional drainage facilities to address water quality impacts from, increased fecal coliform. Similar to the case of *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1197 (city required to analyze potential environmental impacts from increased visitors with dogs), this Project would also result in significant water quality effects.

There is substantial evidence supporting a fair argument that the Project would cause significant water quality impacts by contaminating the American River, and therefore an EIR is required. Further, additional mitigation, such as proper signage and additional design modifications could alleviate this potential impact.

J. Project Noise Impacts are Potentially Significant

The MND fails to acknowledge how the Project would potentially increase noise levels claiming there would be no noise impacts. (MND, p. 103.) The MND overlooks several potential sources of noise that would result from the Project including: new trail users playing music with portable speakers; the potential for 24-hour use of the trail leading to unacceptable levels of nighttime noise; and that more pedestrians may use the top of the levee to avoid conflicts with bicyclists on the paved trail, creating new sources of noise closer to residents. However, because the MND fails to consider these potential impacts, it is impossible for the public to understand the extent of the Project's potential noise impacts.

K. Project Impacts on Public Services are Potentially Significant

1. The MND Fails to Accurately Describe Baseline Illegal Camping Activity in the Vicinity of the Project Area

The MND makes no mention of illegal camping activity that occurs in the vicinity of the Project area. The area immediately adjacent to the Project area has a perineal homeless population, particularly near Sutter's Landing Regional Park and along the American River south bank. (See Exhibit K, Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count, p. 48 ("Point-in-Time Count").) The 2017 Point-in-Time Results likely underestimate the number of unsheltered people living along the American River Parkway, because much of the area was flooded at the time the count was done. (Exhibit K, Point-in-Time Count, pp. 25-26.) In the absence of the flooding, the number of people along the bikeway would likely have been substantially higher.

These locations along the American River Parkway are all accessed by the paved bike trail that connects directly to the services and concentrations of unsheltered people in the north downtown area. The bike trail provides an off-street, paved surface, that allows for the transport of shopping carts and other carts, and bikes heavy with baggage. Crucially, these locations along the parkway are all within 2.5 miles—by paved, off-street bike trail—of the north downtown concentration center, and all provide access to the privacy of densely wooded areas. The Two Rivers Trail is intended to eventually connect the densely wooded riparian areas of the Project area to the north downtown area with 2.5 miles of paved, off-street bike trail.

The MND however, fails to consider the potential increases in illegal camping in the Project area, or the resulting impacts that may result from such an increase. This

includes potential fire risks, water quality degradation from storm runoff, and increased public services demands in the area. A full accounting of the unsheltered population in the Project area is necessary to fully evaluate the Project's environmental impacts.

2. *The MND Fails to Consider Increases in Required Public Services Due to Increased Visitors and Exposure of Illegal Camping*

According to the MND, “[t]here is no evidence to indicate that a paved path would lead to increased crime, fires, or noise relative to the current condition.” (MND, p. 82.) This assertion is made without supporting analysis.

With increased visitors to the Project area, and potential increases in illegal camping activity, the Project would potentially require dramatically more public service resources than current conditions. With increased visitors, cyclists, and potentially unsheltered population, the Project would increase the need for fire services, police services, trash pickup and other maintenance services.

As to fire services, the MND fails to recognize the following:

- 1) that fires within the American River Parkway corridor occur primarily where there is a paved trail and, therefore, that development of a paved trail will increase the incidence of fires within the project area through the ignition by cigarette butts and camp fires;
- 2) that the trail is closely bordered by dense grasses and shrubs that are very dry through much of the year and could easily carry fire;
- 3) that the trail is closely bordered and overhung by trees, many greater than 60 feet tall, that could carry fire above the top of the levee and drop flaming brands over the levee;
- 4) that, unlike other areas along the parkway within the City of Sacramento where fires have occurred—such as directly across the river from the project area, where the bike trail is paved—this section of the Parkway is directly adjacent to residences; and
- 5) that an increase in fire incidence along the parkway would mean an increase in fire risk to the adjacent neighborhood, as an ignition in the grass

could move to the tree canopy on the river-side, which would send flaming debris over the top of the levee onto yards and houses.

These factors all support a fair argument that the Project would require increased levels of fire services.

Moreover, the MND fails to recognize that the fire department is limited in its ability to access the areas where fires are most likely to occur as a result of this Project, the area at the toe of the levee and in the wooded riparian area along the river. The fire department would presumably need to drive to one of the access points at Glenn Hall Park or Sutter's Landing Park, and would need to open the access gate, all of which would require time. The fire department would be largely limited to the road at the levee crown, and not to the toe road or the area beyond the toe road, which is steep and wooded in many areas and, at Paradise Beach, is too sandy for fire trucks to drive on. This area is particularly problematic for fire department access. In November of this year, firefighters were limited in their ability to fight a fire near Paradise beach because of access limitations. Yet the MND does not include any recognition of this potentially significant impact or any mitigation measures to increase fire service access to the Project area.

Logically, fire ignitions from cigarettes and vandalism are most likely to occur along paved trails where there is greatest visitation and usage. Ignitions from illegal fires are most likely to occur near a paved trail, where the vegetation provides a privacy screen from the trail. Therefore, fires in this location and along the trail can be expected to increase due to increased access and usage due to the Project.

The increased risk of fire from the Project is particularly relevant due to the Project's proximity to residential areas. River Park is a residential neighborhood that borders the project area for approximately two miles from the Capital City Freeway bridge to the H Street. This is one of only two places in the City of Sacramento where the Parkway is directly adjacent to a residential area. In other portions of the Parkway within the City, there is a large thoroughfare as well as a canal, or a golf course, or a large commercial property, standing between the river parkway and any residential buildings. In many places, houses in River Park are only 80 feet from the branches of trees in the wooded area along the river. Trees in backyards can be even closer. This is especially true of the houses along Segments 4 and 5A. The MND fails to acknowledge the uniqueness of River Park's situation, and the potential consequences for the neighborhood should the Project lead to increased fire ignitions.

Similarly, the MND fails to recognize the potential need for increased police services in the area. The MND states that “[t]here is no evidence to indicate that a paved path would lead to increased crime, fires, or noise relative to the current condition.” (MND, p. 82.) However, the MND does not support this assertion with any analysis, despite the logical conclusion of increased visitors leading to increase crime, fires, and noise relevant to current conditions.

The MND fails to acknowledge that a substantial increase in use and traffic would result in a commensurate increase in incidents requiring emergency services or police attention for incidents including bicycle collisions and accidents, graffiti and vandalism, medical emergencies, and altercations. Also, once the bike trail is paved, it would be considered a transportation corridor and 24-hour access would be allowed. At the River Park neighborhood association spring meeting, the City discussed the possibility of funding additional rangers for the Project area. This tacit admission that the Project area will require more police services is inconsistent with the MND’s conclusions.

The same arguments apply equally to emergency services. The current path along the levee toe is heavily used by families walking, often with small children and dogs. (See Exhibit A, Testimony on Aesthetics, pp. 1-7; see also Exhibit C, Baseline Parkway Use.) The Project would increase the number of bikers on the trail, at the same time allowing those bicycles to travel at much higher speeds. This would inevitably result in an increase in conflicts and collisions between pedestrians and the bike through-traffic within the narrow space at the toe of the levee. The resulting collisions and conflicts would increase the need for emergency and police services.

Last, the MND fails to acknowledge that an increased use and traffic due to the project would result in a commensurate increase in the amount of trash generated at Glenn Hall Park. As more people use Glenn Hall Park as an access point for the Parkway, the dumpster at the base of the levee on the river side by Glenn Hall Park would be used more frequently. The trash receptacles in these areas already overflow routinely throughout the summer and on busy weekends. The Project would also result in a substantial increase in litter and trash along the trail from the H Street Bridge to Sutter’s Landing as a result of the increase in traffic and use. This would require more public services to empty the existing and additional trash receptacles and to remove trash littered along the trail. Yet the MND fails to recognize the need for additional services to empty trash receptacles and remove litter along the trail.

Also, the increase in use and traffic at Glenn Hall Park due to the Project would result in a commensurate increase in the use of the toilet facilities at Glenn Hall Park,

which will require more cleaning and repairs. Currently, these toilet facilities routinely experience clogs, run low on toilet paper, and can become very dirty. The MND fails to recognize the need for additional services to clean and repair the toilet facilities.

As discussed above, the path at the toe of the levee can become submerged when the river is high, and has been submerged for multiple weeks in recent years. The Project trails would be submerged when the river level reaches the toe of the levee. This would cover portions of the pavement in mud, requiring clean up. The submersion would also potentially wash away portions of the pavement, which in turn would require repairs. The MND fails to recognize the need for additional services to clean and repair the trail following submersion events.

L. The Project May Have Potentially Significant Impacts on Transportation/Traffic

According to the MND, there would be no significant impacts to transportation and traffic from the Project. (MND, p. 87.) Therefore, no mitigation is proposed. The MND is inadequate.

1. Setting Information Regarding Transportation/Traffic is Incomplete

The MND fails to include information regarding existing bicycle and pedestrian uses of the trails in the Project area. As demonstrated in both Parkway user surveys, Exhibits B and C, as well as the testimony in Exhibit A, bicycles and pedestrians use the Project area as a transportation route. The existing trail configuration allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths in other locations within and outside of the Parkway. The MND only describes existing formal transportation paths, City streets and paved sidewalks, ignoring the current transportation uses of the Project area. (MND, pp. 87-88.) The MND also fails to acknowledge that Carlson Drive, while an access point, does not currently include a bike lane. (See Exhibit D, Sacramento Bike Plan Excerpts.) Whether the Project, a trail primarily for bicycle use, has access points that accommodate bicycles, is necessary information to evaluate traffic and transportation impacts.

2. Significant Transportation/Traffic Impacts

The MND incorrectly concludes the Project would not have potentially significant impact to pedestrian travel and use of the Project. (MND, p. 90.) As with recreational impacts, the MND fails to consider how the Project's planned uses, increased bicycle commuting, is incompatible with existing pedestrian use. Without any reasoning or analysis, the MND asserts that the Project design, primarily the gravel shoulders, would "minimize the conflict between bicycles and pedestrians." (MND, p. 90.)

The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the Project area is a haven for pedestrians seeking a more natural walking experience. (See Survey, Exhibits B and C; see also Exhibit A, Testimony on Aesthetics, pp. 1-7.) Given the Project objective to provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area, the MND inadequately analyzes the potential conflicts between the introduction of numerous commuters on bikes to the existing pedestrian environment. (See especially Exhibit C, crossing estimates.)

The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete. The evidence of existing uses and potential conflicts with new users supports a fair argument that the Project would have a potentially significant impact on pedestrian travel in the Project area.

The MND also fails to recognize a potentially significant impact to bicycle travel. As discussed above, Carlson Drive, one of five Project access points, does not currently have a bike lane. (Exhibit D, Sacramento Bike Plan Excerpt.) The Project would presumably increase bike traffic on Carlson Drive, as commuters would use it as an access point to the new paved trail. However the MND does not analyze the impacts of increased bicycle traffic on Carlson Drive, nor does it include mitigation such as constructing a bike lane. (MND, p. 90.) Increased bike traffic, without a bike lane, could potentially impede use of Carlson as an access point and cause public safety issues.

M. The MND Fails to Address the Project's Cumulative Impacts

CEQA requires analysis of "[t]he cumulative impact from several projects" which "can result from individually minor but collectively significant projects taking place over

a period of time.” (CEQA Guidelines, §§ 15355, 15130.) “Proper cumulative impact analysis is vital ‘because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.’ [Citations.]” (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214.)

Despite this mandate, the MND includes no discussion of the interaction between the proposed Project and other past, present, and probable future projects *producing related or cumulative impacts*. It does not appear that the City considered potentially cumulative impacts for any individual resource impacted by the Project. An agency must “determine[] whether the incremental impacts of the project are cumulatively considerable by evaluating them against the backdrop of the environmental effects of other projects. The question is . . . whether the effects of the individual project are considerable.” (*San Joaquin Raptor I, supra*, 42 Cal.App.4th at 624 [internal quotations and emphasis omitted].) While the City did not need to “conduct some sort of grand statistical analysis of the combined purported environmental impacts, if any, of all other” projects in the surrounding area, it should have included some analysis into whether this Project’s incremental effects could be considerable in light of other projects. (*Id.* at 624-625.) Instead the MND only included two paragraphs that are meant to address every impacted resource. (MND, p. 102.) Analysis tailored to specific resources is required by CEQA. (*Ibid.*)

IV. Conclusion

The MND fails to meet the most basic standards for adequacy under CEQA, and an EIR must be prepared for this Project. In addition, alternatives and mitigation measures are available that would avoid and/or lessen the potentially significant impacts of the Project have not been, but must be, considered. As a result, Save Don’t Pave respectfully requests that the City fully comply with CEQA by preparing an EIR before taking any action on this Project.

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
November 30, 2018
Page 32 of 33

Thank you for the opportunity to provide comments on the MND and the Project. Please feel free to contact this office regarding any questions about these comments and potential means to address the concerns stated herein.

Very truly yours,

SOLURI MESERVE
A Law Corporation

By: 
Osha R. Meserve

ORM/mre

cc (via email): Save Don't Pave

Attachments:

- Exhibit A Parkway User Testimony and Photographs Regarding Aesthetic Impacts
- Exhibit B Survey of American River Parkway Trail Users (June-Oct. 2018)
- Exhibit C Baseline Recreational Use Data (May-August 2018)
- Exhibit D Sacramento Bicycle Master Plan Excerpts
- Exhibit E United States Fish & Wildlife Service, Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (May 2017)
- Exhibit F City of Sacramento, Permits & Ordinances, When is a Tree Permit Needed?
- Exhibit G American River Parkway, County Parcels and Inholdings, Boundary and Ownership Map (November 13, 2017)
- Exhibit H Two Rivers Trail Phase I Staff Report to City Council (January 9, 2007)
- Exhibit I Lower American River Task Force, Bank Protection Working Group, Update Presentation (March 13, 2018)
- Exhibit J Microbes and Urban Watersheds: Concentrations, Sources, & Pathways (March 22, 2016)
- Exhibit K Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count (Excerpt)

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
November 30, 2018
Page 33 of 33

Exhibit L Two Rivers Trail Phase II: Inconsistencies with the American River
Parkway Plan

Biological References:

California Natural Diversity Database (CNDDB) 2018. Natural Heritage Division,
California Department of Fish and Wildlife, Sacramento, CA.

Talley, T.S., E. Fleishman, M. Holyoak, D. Murphy, and A. Ballard. 2007. Rethinking a
rare-species conservation strategy in an urbanizing landscape: The case of the valley
elderberry longhorn beetle. *Biological Conservation* 135:21-32

U.S. Fish and Wildlife Service. 1894. Valley Elderberry Longhorn Beetle Recovery
Plan. U.S. Fish and Wildlife Service, Endangered Species Division, Portland, Oregon. 62
pp.

U.S. Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley
Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and
Wildlife Service, Sacramento, California. 28 pp. May 2017.

EXHIBIT A

Aesthetic Impacts of Two Rivers Trail, Phase 2

Brian Nowicki Comments

These comments are offered with specific respect to the aesthetic impacts of the Two Rivers Trail and do not encompass all of my concerns regarding the impacts to biological resources and wildlife habitat, nor regarding the costs of the project and the process by which it was developed.

I use the path at the foot of the levee several times a week. It is an ideal place to enjoy and explore nature in a safe and quiet environment. It is a dirt and gravel path, narrow and winding in some places, overhung with branches, shady and quiet. With dense woods close on one side, and with the levee blocking the view to the adjacent neighborhood on the other side, it is a place where people can get away from the noise and rush of the surrounding city, to experience the sights and sounds of nature, and to let dogs walk and children explore and play. It is a wonderful place to experience the habitat of the rare and threatened species in Sacramento's backyard, the valley elderberry longhorn beetle.

At least twice a week, I run the entire length of the path, from the H Street bridge to its western end near the I-80 bridge. I use the path at the foot of the levee because it lets me run on a soft, level surface in a quiet, natural setting, close to trees. Every weekend, my family and I walk along the path at the foot of the levee, stopping often to look closely at the flowers and trees that reach into the path. We look for valley elderberry longhorn beetles among the elderberry plants, we watch pipevine swallowtail butterflies, and we birdwatch for quail and other birds that frequent the path. We catch falling leaves from the trees in the fall and jump in puddles in the path in the winter, and we stop and visit with fellow walkers and their four-legged companions.

This project as planned would drastically change the nature of this trail and degrade what my family and I treasure about this special area. Throughout much of the area at the west end of River Park the paved trail and shoulder would take up the entirety of the terrace at the foot of the levee, requiring the removal of all trees and other vegetation between the levee and the steep slope down to the river, cutting significant swaths of elderberry shrubs and leaving a much more urban and sterile environment, with less shade and wildlife. There are few places along the parkway that are so narrow and that will be so fundamentally changed as the section at the west end of River Park.

Instead of taking a leisurely walk along a quiet path thick with wildlife, pedestrians will largely be relegated to the gravel shoulder as bikes speed by on the paved trail, like everywhere else along the American River bikeway. And instead of following a butterfly as it crosses the path, or stopping to jump in a puddle or to look at tracks in the mud, children will have to keep to the shoulder to avoid bicycle traffic. This has been our experience everywhere else the trail is paved.

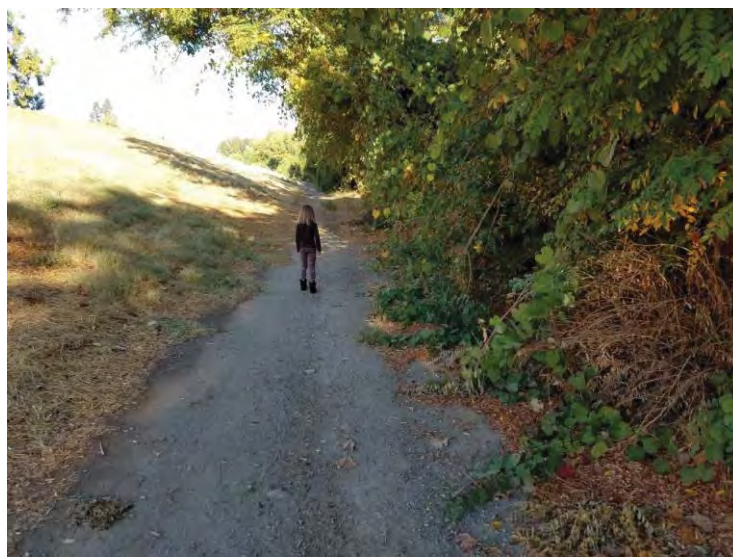
This is a special area that offers an opportunity to enjoy a quiet walk in nature, up close with some of Sacramento's endangered wildlife. This experience, habitat, and endangered species should not be so lightly given up when there is already a twenty-foot-wide road at the top of the levee, just thirty feet away, or without considering alternatives for avoiding these impacts.

The following two photos provide a comparison of the paved section of the trail at Sutter's Landing and the current path approximately half a mile east of the I-80 bridge.

Brian Nowicki

River Park, Sacramento, CA

November 29, 2018



Regarding aesthetics

To Mr. Buford:

I am writing to let the City Council know of the very special character of the levee toe trail in River Park. As a thirty-plus year resident of this neighborhood I have been blessed to have access to one of the most special environments in Sacramento.

Walking on the levee toe trail is an invigorating and enjoyable experience, no matter what the season.

In the winter, the quiet path is inviting. The sound of water fowl provides the sound track. The air is clear and bracing. The bare trees' branches trace patterns in the cloud-grey skies. Just walking over the levee takes me to another world – of natural beauty and harmony. The winter rains may fill the river bed so much that it nips close to the trail. I am invited to dawdle, to pause, to inspect a plant, to gaze at a crow in a tree, to watch a hawk soar overhead. I don't worry about where I am in relation to a speeding bicycle. I don't worry about anything, really. The experience is calming and I recommend you try it!

In spring, the grasses green up, the trees sprout leaves, and the birds and insects begin their symphony of many tunes. Wildflowers – poppies, etc. – spring up and cloak the levee. Once again, the path invites a slow and mindful experience.

In the summer, it's best to walk in the early morning or later in the afternoon. The shade trees provide respite right over the trail in many places. It would be terrible to lose any of them. This is when you will see wildlife: hares, coyotes, skunks, and ground squirrels. Of course, in the inlets of the river, crayfish, tadpoles, etc., teem. And the rattlesnake; one must watch for him or her.

In autumn, the trees go gold, as does the grass. The mammals may get bolder as they search for food. The air again grows crisp, the invitation remains open to walk slowly and experience the joy of a natural environment near enough to be accessible to any resident of this City.

The walking experience on this trail is like no other experience I've had in Sacramento. It is quiet, friendly, communal, and yet solitary. To pave it is to lose this experience forever. There will be no going back.

Thanks for reading this and please Save Don't Pave.

Kate Riley

5601 Monalee Avenue

Sacramento, CA

95819

Paving the lower trail will affect both the immediate viewshed and the natural experience that affords but also the more distant viewshed which would be more naked and hardened by the paved trail. Views from both the toe and top of the levee would be negatively affected by the project.

Large trees along the existing trail afford shade, soften the view, and create a richer visual experience which would be negatively affected by the project. Replacing large trees in the immediate area (are replacement tree plantings being proposed right along the trail?) Would be extremely challenging unless they are given consistent maintenance. The values (visual, scenic, habitat) that these large trees currently provide would not be attained by replacement trees for many years if not decades.

Other existing vegetation that grows densely along the trail softens and enhances the visual and natural experience and provides cover for wildlife. The existing vegetation would be difficult if not impossible to recreate. Its density helps to suppress weeds such as Star thistle which could get a foothold as a result of the extensive ground disturbance. Star thistle requires constant vigilance and is a visual and ecological blight that overwhelms native grasses and other vegetation.

Nancy Mackenzie

Nancy Mee comments on aesthetic impacts of Two Rivers Trail Phase II project:

Would the project:

a) Have a substantial adverse effect on a scenic vista? Yes, a black asphalt path is far less aesthetically pleasing to the eye than a natural path strewn with leaves and other natural non-garbage debris.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Yes, my understanding is the path construction will eliminate approximately an additional 5-ft width, which will result in the removal of trees, grass, elderberry, naturalized grape vines. Also, the grass along the current unimproved path seems to a ladybug habitat. In early spring, I have seen swarms along the path. How will this be affected by the paving.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? Yes. I have already seen graffiti on the newly paved area between Sutter's Landing and the RR/Bus 80 overcrossing. As a bike commuter on the lower American bike path and dog walker, I've seen the paved path bring transient and homeless usage, human waste, camping, and garbage. This is not prevalent along non-paved areas or outside of Sacramento City limits, where neighboring city councils are willing to take a firm anti-illegal camping position.

Concerns regarding significant impacts to aesthetics due to Two Rivers Trail Project

As I walk along this existing dirt trail, which I do nearly every day, I enjoy views of the river peeking through the surrounding elderberry bushes and the sights and sounds of songbirds feeding on the berries. Paving this trail would require me to walk instead on the gravel top of the levee, peering mostly into other resident's backyards, and watching out for yet more bicycles, since there is and will be nothing to stop bicyclists from using that "trail" as well as the paved bicycle superhighway below.

Paving this trail will substantially damage scenic resources, including not only the endangered elderberries scattered along the trail and the birds and other creatures that feed on them, but also disturbing the entire ecosystem. There are few sights more stunning in our almost exclusively urban environment than walking quietly around a corner of the existing dirt trail to see ahead a family of red foxes just disappearing through the underbrush at the side of the trail. These visual encounters with nature bring daily peace to all who have access to that resource, and will be lost with the widening and paving of that trail.

Cherie O'Boyle

My name is Tony Mader, a current resident of the River Park neighborhood in Sacramento that is immediately adjacent to the Two Rivers Trail project. For the last 10 years, I have used the area that is proposed to be paved to walk (with and without my dogs), run, or other activities associated with being close to nature, approximately 5 times per week on average.

The area proposed to be paved is the last wild (unpaved) portion of the South side of the American River within City limits. I visit it daily as a natural refuge away from the bustle of the City. If it is paved, it will absolutely, permanently degrade the existing visual character and quality of the surroundings. Whereas today I can peacefully walk or run on a gravel path experiencing nature, I know a paved path will degrade the quality of the site for those activities because (1) I have attempted to use the existing paved path on the east side of the neighborhood for those activities and find that it is not peaceful due to the pavement, bikers traveling at high speeds, and very dangerous to walk my dogs due potential collisions with bikers, and (2) the fact that the proposed paving includes destroying trees and bushes that are on the trail that are critical to the visual character and quality of the site as a location to feel like I am close to nature.

-Tony Mader
November 25, 2018



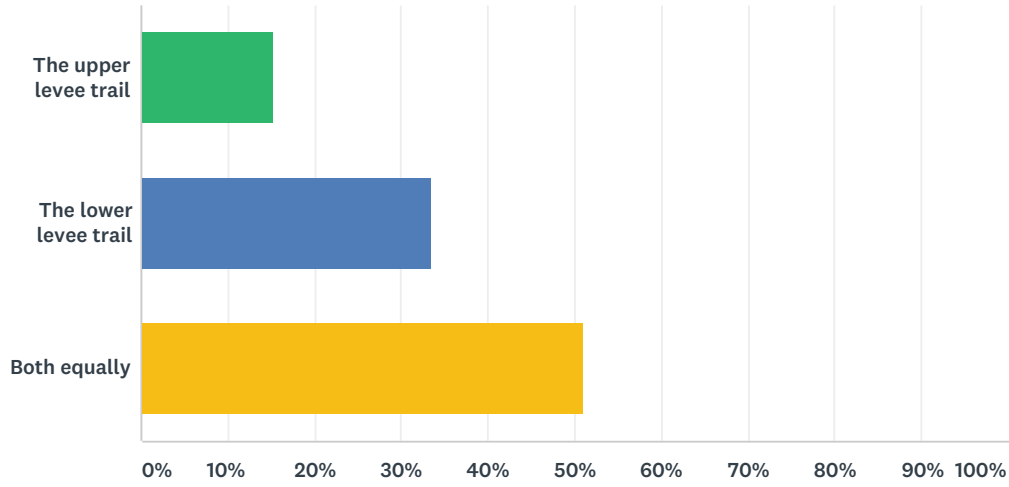




EXHIBIT B

Q1 I primarily use:

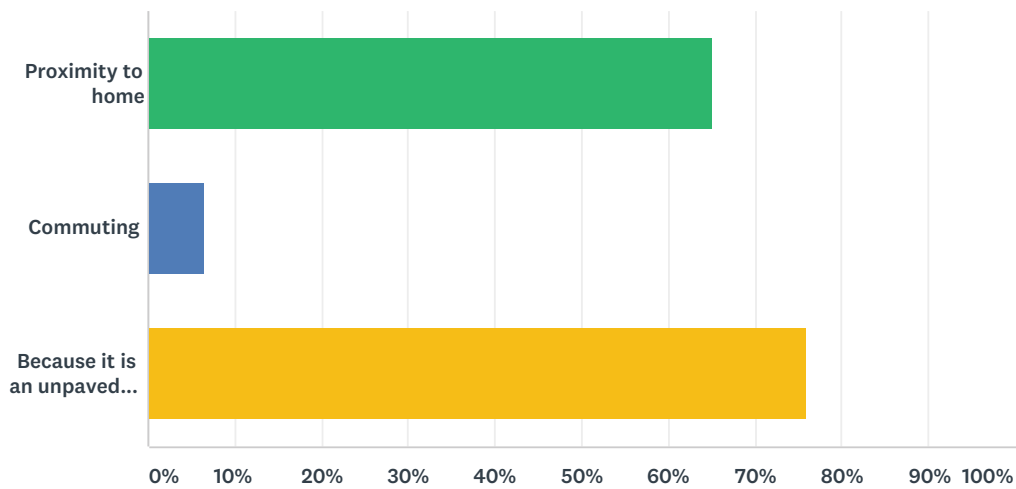
Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES	
The upper levee trail	15.33%	21
The lower levee trail	33.58%	46
Both equally	51.09%	70
Total Respondents: 137		

Q2 Why do you choose to utilize this section of trail? Select all that apply.

Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES
Proximity to home	64.96% 89
Commuting	6.57% 9
Because it is an unpaved section of the parkway	75.91% 104
Total Respondents: 137	

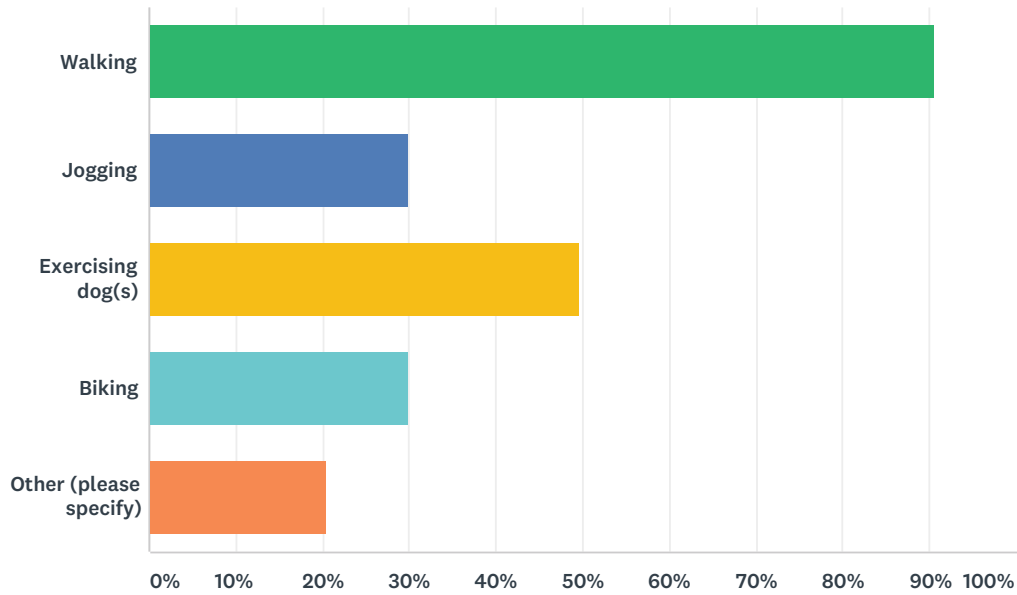
#	OTHER (PLEASE SPECIFY)	DATE
1	I like to be closer to the trees and the natural beauty while on the unpaved trail.	10/27/2018 9:31 AM
2	It is the only place close in the City to be in nature	10/25/2018 4:53 PM
3	MY children and I enjoy being in nature. The nature paveway is a great getaway and what made us move to River Park.	10/15/2018 10:10 AM
4	We use the lower section to walk our dog, to be out in nature, and to avoid cars and bicycles.	10/13/2018 10:21 AM
5	I want to avoid interrupting the privacy of the adjacent homeowners.	10/10/2018 10:20 AM
6	Less other travelers or users to compete with.	10/8/2018 1:47 PM
7	you see more birds and interesting animals and you can also walk close to the river and see the fish jump	10/5/2018 7:34 PM
8	Pleasure walks with dog	10/3/2018 4:10 PM
9	And it is the one section relatively free of homeless encampments so I feel safer here than other places	10/3/2018 12:05 AM
10	In respect of the homeowners' privacy we use the lower section	9/13/2018 9:32 AM
11	Walking my dogs as the dirt better than pavement for their paws	8/16/2018 6:43 PM
12	I walk my dog on a 6 ft leach and there is plenty of room as well as open space on either side.	8/16/2018 6:40 PM
13	Because I love that is still wild and not paved.	8/16/2018 3:23 PM
14	Walking	7/17/2018 9:33 PM
15	It's a nice place to walk without getting stink eye from bikers or the homeless.	7/3/2018 11:22 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

16	And the surface is hard enough for medium and fat tire bikes	7/3/2018 7:41 PM
17	Prefer the lower section because it is shadier	6/21/2018 12:36 PM
18	The only place you don't get run over by bicyclists going 90 MPH	6/21/2018 9:53 AM
19	to walk dog or run	6/18/2018 5:18 PM
20	Because of the natural beauty and the birds	6/17/2018 10:25 PM
21	I go to see the wildlife, the wildflowers, the river, and to exercise.	6/17/2018 8:31 AM
22	I run almost every day and the dirt trail is easier on my legs/feet. Also, I love the tranquility of the dirt trail.	6/16/2018 5:20 PM
23	We use the top during the dark or if it is flooded below.	6/16/2018 8:35 AM
24	Enjoy the natural surroundings and peacefulness	6/15/2018 3:52 PM
25	to see birds and butterflies	6/15/2018 3:01 PM
26	to do cycling and enjoy the scenery	6/15/2018 9:27 AM
27	It offers the most shade and wind protection. If we want to head to the river, its closest.	6/15/2018 6:47 AM
28	Beauty of the surroundings, bird watching	6/15/2018 6:28 AM
29	Close to beautiful river which my dogs swim in	6/14/2018 6:11 PM
30	Quiet and serene	6/14/2018 4:13 PM
31	Use it to walk for health reasons. Walking on pavement or sidewalks cause me severe pain.	6/14/2018 3:11 PM
32	safety	6/14/2018 2:49 PM
33	The dog likes it, I like it for bike riding, jogging and the general ability to amble about.	6/14/2018 2:37 PM
34	Because it's a beautiful natural area. Quiet. Love birding there.	6/14/2018 2:34 PM
35	love the quite, serenity and feeling of nature.	6/14/2018 2:23 PM
36	It's beauty	6/14/2018 2:00 PM
37	If I'm walking alone, I feel safer there.	6/14/2018 1:49 PM
38	Because I enjoy being out near the river.	6/14/2018 1:28 PM
39	Less people and more natural.	6/14/2018 11:00 AM
40	easier to walk on	6/14/2018 10:28 AM
41	The upper level is used more by bicycles and joggers. I prefer a more relaxing stroll on the lower trail without worrying about dodging fast moving folks up above.	6/14/2018 9:54 AM
42	It's a nice ride but the upper trail needs to be paved to allow more connectivity with the rest of the trail	6/13/2018 12:52 PM
43	It is quaint and lightly travelled. Plus, it is shaded and much cooler at the levee toe.	6/10/2018 11:53 AM
44	Love going in my backyard to walk in nature. I feel like I am far away	6/9/2018 2:59 PM

Q3 What activity do you use the trail for? Select all that apply.

Answered: 137 Skipped: 0



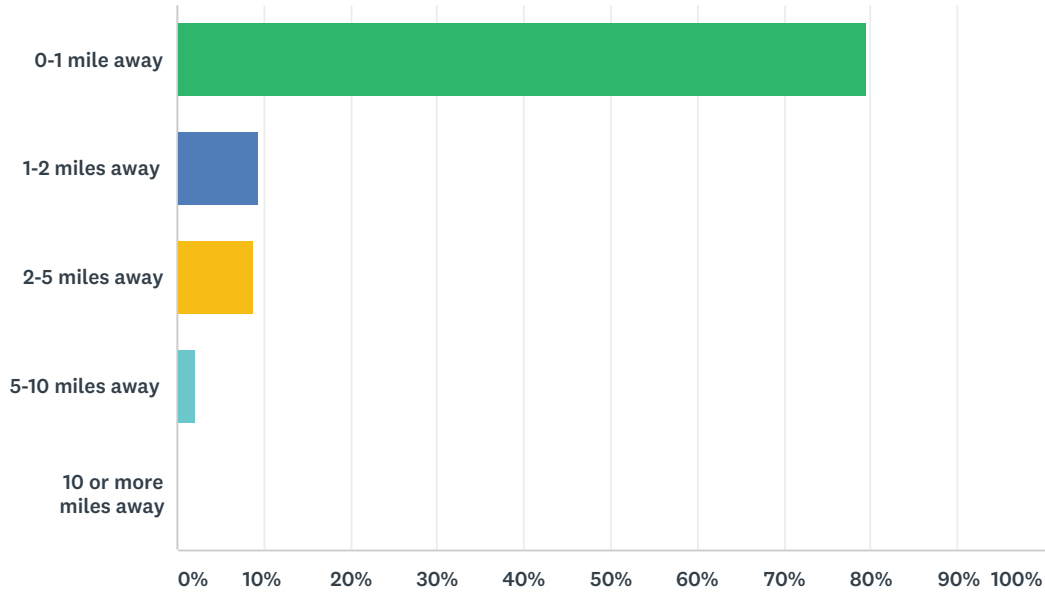
ANSWER CHOICES	RESPONSES
Walking	90.51% 124
Jogging	29.93% 41
Exercising dog(s)	49.64% 68
Biking	29.93% 41
Other (please specify)	20.44% 28
Total Respondents: 137	

#	OTHER (PLEASE SPECIFY)	DATE
1	Bird watching.	10/27/2018 9:31 AM
2	thinking and reflecting a form of walking meditation	10/25/2018 4:53 PM
3	Wildlife/bird-watching	10/3/2018 12:05 AM
4	communing with nature	8/17/2018 12:51 PM
5	To get away from the hussle and bustle.	8/16/2018 3:23 PM
6	Living	7/4/2018 6:54 PM
7	Enjoying nature and a quiet solitude	7/3/2018 7:41 PM
8	River access	7/3/2018 6:14 PM
9	Looking for wildlife	6/21/2018 9:53 AM
10	Taking the kids to explore	6/20/2018 11:03 PM
11	Exploring nature	6/20/2018 9:48 PM
12	Spiritual refreshment	6/17/2018 10:25 PM
13	Communing with nature.	6/17/2018 8:31 AM

14	Bird watching	6/16/2018 5:20 PM
15	We go out daily. We use the entire trail area -- sandbar to the lower trail and along the lower trail along the river -- we refer to it as the "Secret Trail"	6/16/2018 8:35 AM
16	Escape to nature	6/15/2018 3:52 PM
17	bird and wildlife watching	6/15/2018 3:01 PM
18	Beach access, quiet reflection	6/15/2018 11:56 AM
19	Playing with my kids	6/15/2018 11:20 AM
20	Enjoying the quiet and peace of this section of the unpaved Parkway	6/15/2018 6:47 AM
21	Birdwatching	6/15/2018 6:28 AM
22	watching birds and bugs and flowers. Spending time in nature with my daughter.	6/14/2018 2:58 PM
23	birding	6/14/2018 2:34 PM
24	Paradise beach!!!	6/14/2018 2:23 PM
25	To get to the river	6/14/2018 2:00 PM
26	Walking to the river	6/9/2018 3:09 PM
27	Play in nature and walk the trails	6/9/2018 2:59 PM
28	Horse riding	6/9/2018 2:29 PM

Q4 How many miles do you live from this trail?

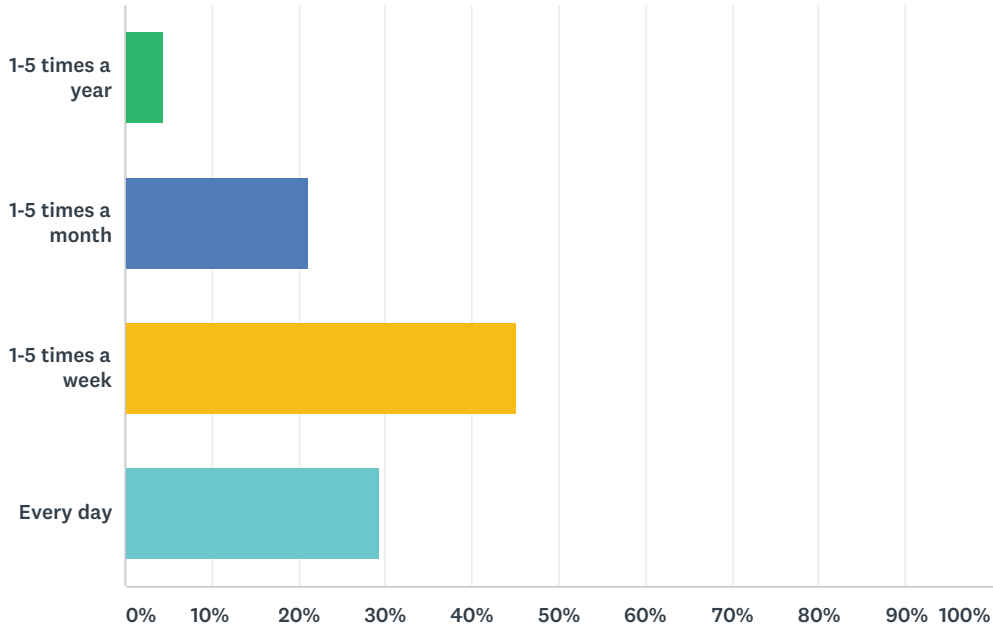
Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES	
0-1 mile away	79.56%	109
1-2 miles away	9.49%	13
2-5 miles away	8.76%	12
5-10 miles away	2.19%	3
10 or more miles away	0.00%	0
Total Respondents: 137		

Q5 How often do you use this trail?

Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES
1-5 times a year	4.38% 6
1-5 times a month	21.17% 29
1-5 times a week	45.26% 62
Every day	29.20% 40
Total Respondents: 137	

Q6 What is your zip code?

Answered: 137 Skipped: 0

#	RESPONSES	DATE
1	95819	10/27/2018 9:31 AM
2	95819	10/26/2018 7:15 PM
3	95819	10/25/2018 4:53 PM
4	95819	10/25/2018 2:51 PM
5	95819	10/15/2018 10:10 AM
6	95816	10/13/2018 10:21 AM
7	95819	10/12/2018 10:29 PM
8	95819	10/12/2018 8:35 PM
9	95819	10/12/2018 8:27 PM
10	95819	10/10/2018 10:20 AM
11	95819	10/8/2018 1:47 PM
12	95819	10/5/2018 7:34 PM
13	95819	10/4/2018 11:26 AM
14	95819	10/4/2018 8:27 AM
15	95819	10/3/2018 4:10 PM
16	95819	10/3/2018 10:01 AM
17	95816	10/3/2018 9:47 AM
18	95819	10/3/2018 8:19 AM
19	95819	10/3/2018 6:20 AM
20	95819	10/3/2018 4:55 AM
21	95819	10/3/2018 12:05 AM
22	95819	10/2/2018 2:40 PM
23	95819	9/13/2018 9:32 AM
24	95819	8/21/2018 1:53 PM
25	95817	8/17/2018 12:51 PM
26	95819	8/16/2018 9:14 PM
27	95819	8/16/2018 8:53 PM
28	95819	8/16/2018 6:43 PM
29	95818	8/16/2018 6:40 PM
30	95819	8/16/2018 3:23 PM
31	95819	8/16/2018 3:16 PM
32	95819	8/16/2018 2:59 PM
33	95819	8/16/2018 2:48 PM
34	95819	8/16/2018 1:16 PM
35	95819	8/16/2018 1:02 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

36	95819	8/16/2018 12:57 PM
37	95819	8/16/2018 12:52 PM
38	95819	8/16/2018 12:43 PM
39	95819	8/7/2018 9:55 PM
40	95819	7/23/2018 11:49 AM
41	95819	7/17/2018 9:33 PM
42	95841	7/15/2018 9:57 AM
43	95819	7/4/2018 6:54 PM
44	95820	7/4/2018 1:20 PM
45	95819	7/3/2018 11:22 PM
46	95819	7/3/2018 9:02 PM
47	95819	7/3/2018 7:41 PM
48	95819	7/3/2018 6:14 PM
49	95819	7/3/2018 6:11 PM
50	95819	7/3/2018 6:05 PM
51	95819	7/1/2018 9:52 PM
52	95819	6/24/2018 9:04 AM
53	95819	6/21/2018 2:29 PM
54	95819	6/21/2018 12:36 PM
55	95819	6/21/2018 11:44 AM
56	95819	6/21/2018 9:53 AM
57	95819	6/21/2018 8:59 AM
58	95819	6/21/2018 4:10 AM
59	95819	6/20/2018 11:03 PM
60	95819	6/20/2018 9:49 PM
61	95819	6/20/2018 9:48 PM
62	95819	6/18/2018 5:18 PM
63	95819	6/18/2018 1:35 PM
64	95819	6/18/2018 9:22 AM
65	95819	6/17/2018 10:25 PM
66	95819	6/17/2018 7:29 PM
67	95819	6/17/2018 8:31 AM
68	95819	6/16/2018 7:02 PM
69	95819	6/16/2018 5:20 PM
70	95819	6/16/2018 11:33 AM
71	95819	6/16/2018 8:35 AM
72	95819	6/16/2018 8:14 AM
73	95819	6/15/2018 11:07 PM
74	95819	6/15/2018 8:56 PM
75	95819	6/15/2018 6:33 PM
76	95819	6/15/2018 3:52 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

77	95819	6/15/2018 3:20 PM
78	95819	6/15/2018 3:01 PM
79	95819	6/15/2018 2:20 PM
80	95819	6/15/2018 1:09 PM
81	95819	6/15/2018 11:56 AM
82	95819	6/15/2018 11:20 AM
83	95819	6/15/2018 9:27 AM
84	95819	6/15/2018 8:33 AM
85	95819	6/15/2018 8:20 AM
86	95819	6/15/2018 8:09 AM
87	95819	6/15/2018 6:47 AM
88	95819	6/15/2018 6:28 AM
89	95819	6/14/2018 7:59 PM
90	95819	6/14/2018 7:45 PM
91	95819	6/14/2018 6:11 PM
92	95819	6/14/2018 4:44 PM
93	95819	6/14/2018 4:30 PM
94	95819	6/14/2018 4:13 PM
95	95814	6/14/2018 4:05 PM
96	96819	6/14/2018 3:55 PM
97	95819	6/14/2018 3:29 PM
98	95819	6/14/2018 3:20 PM
99	95819	6/14/2018 3:11 PM
100	95819	6/14/2018 2:58 PM
101	95819	6/14/2018 2:49 PM
102	95818	6/14/2018 2:37 PM
103	95819	6/14/2018 2:34 PM
104	95819	6/14/2018 2:23 PM
105	95819	6/14/2018 2:15 PM
106	95819	6/14/2018 2:00 PM
107	95819	6/14/2018 1:49 PM
108	95819	6/14/2018 1:30 PM
109	95811	6/14/2018 1:28 PM
110	95819	6/14/2018 1:17 PM
111	95819	6/14/2018 12:18 PM
112	95819	6/14/2018 12:17 PM
113	95819	6/14/2018 11:45 AM
114	95819	6/14/2018 11:12 AM
115	95816	6/14/2018 11:07 AM
116	95819	6/14/2018 11:00 AM
117	95819	6/14/2018 10:28 AM

118	95818	6/14/2018 9:54 AM
119	95820	6/13/2018 12:52 PM
120	95819	6/11/2018 3:51 PM
121	95819	6/11/2018 3:18 PM
122	95819	6/11/2018 11:10 AM
123	95819	6/10/2018 11:53 AM
124	95819	6/9/2018 3:09 PM
125	95819	6/9/2018 2:59 PM
126	95819	6/9/2018 2:29 PM
127	95819	6/9/2018 2:02 PM
128	95819	6/9/2018 1:24 PM
129	95819	6/9/2018 1:19 PM
130	95819	6/9/2018 12:49 PM
131	95819	6/9/2018 11:53 AM
132	95819	6/9/2018 11:49 AM
133	95819	6/9/2018 10:43 AM
134	95818	6/9/2018 10:32 AM
135	95819	6/9/2018 10:30 AM
136	95819	6/9/2018 10:25 AM
137	95819	6/9/2018 10:07 AM

Q7 Do you have any additional comments?

Answered: 91 Skipped: 46

#	RESPONSES	DATE
1	Pavement will destroy the natural beauty of this area forever. It will never be the same. There is absolutely no reason why Sacramento trails have to be paved in order to be considered "connected".	10/27/2018 9:31 AM
2	This paving is going to be done whether or not the residents of River Park agree. It makes no difference at all if we object. It's sort of like voting; whether voted for or not, it will be pushed through.	10/26/2018 7:15 PM
3	I meet people from all over the region who come to the lower trail. During the summer many rafters dock pulling their rafts and gear across the lower trail. they deflate the rafts and taking up the entire width of the trail.	10/25/2018 4:53 PM
4	very much opposed to paving this section of the American river trail. fast-moving bikes already have a lane across the river and us slow moving walkers (aged, young, hikers etc.) need a place to access the river too.	10/25/2018 2:51 PM
5	I strongly do NOT want the paved road. Bike clubs travel ever weekend on the unpaved road. The area is beautiful in its natural state. My family travel to downtown on the path without any problems. I feel the pave will also leave to move shopping carts, liter, and ruin the environment for families and animals.	10/15/2018 10:10 AM
6	We want to preserve this tiny sliver of nature so that we may enjoy the quiet and beauty of the little bit of natural space that still exists near us. Paving the lower section of the levee and encouraging bicycle use will destroy the lovely peacefulness and quiet of this area. There is already a bike trail on the other side of the river--which we use frequently. Leave the walking and dog-walking path on the other side for those who need to experience the outdoors in another way. There are too few natural areas like it left.	10/13/2018 10:21 AM
7	Keep up the good work!	10/8/2018 1:47 PM
8	If you pave the upper trail, people will ride their bikes on the lower dirt trails. I have almost been hit by bicyclists on multiple occasions. They go fast around blind corners and terrify walkers. If there are more bicycles on the dirt foot trails (which are very narrow) people who walk may be afraid to do so.	10/5/2018 7:34 PM
9	sounds like your attorney is not willing to take this to court if necessary. Refer to my email from NRDC with ideas of local attorneys to contact to help out. Ann Naimark	10/4/2018 11:26 AM
10	We need the trees lining the river to help be a shock absorber against flood waters!	10/4/2018 8:27 AM
11	Leave this beautiful stretch alone. There are plenty of places for fast biking without endangering families and dogs crossing the levee.	10/3/2018 9:47 AM
12	Safety laws and regulations will be compromised for the development and construction of a paved pathway along the toe of the levee.	10/3/2018 8:19 AM
13	Paving the trail would take away the beauty, functionality, and river park sanctuary for outdoor activity serving East Sacramento and River Park's residents, pets, and children	10/3/2018 4:55 AM
14	I'm appalled that the city is willing to pay a 1.5 million dollar fine to remove protected elderberry trees. Also I do bike ride on the parkway & the north side is already paved, so its easy to get downtown already. Though the homeless can be quite frightening on the paved trail sections!	10/3/2018 12:05 AM
15	Seniors on foot sometime have trouble coping with fast bicycles	10/2/2018 2:40 PM
16	Prefer bike trail on the upper levee over lower trail. Which is where we usually ride anyway when commuting.	8/21/2018 1:53 PM
17	The trails as they are currently are a welcome reprieve from the concrete that surrounds us! Green spaces (space with trees, plants, etc.) have been shown to prevent violence and we are concerned that paving the trails would impact the green space that surrounds us. We need more green space, not less.	8/16/2018 9:14 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

18	don't pave!	8/16/2018 8:53 PM
19	Keep the bike path on the top of the levee.	8/16/2018 6:40 PM
20	If the trail goes in I will likely sell my home. I do not feel that this neighborhood is properly or accurately represented.	8/16/2018 3:23 PM
21	I think that it's a waste of money to pave a portion of the parkway that doesn't need it. There should be a place for walkers and runners can go that doesn't cater to bikes. They have the other section of parkway to ride on.	8/16/2018 3:16 PM
22	Leave the trail unpaved. It is nice to have undeveloped areas of nature within communities.	8/16/2018 2:48 PM
23	I can think of a million better things to spend 6 million dollars on. Most of the these bike people are dangerous, they mow us walkers down. Jeff Harris can drive his car to work.	8/16/2018 1:16 PM
24	Please let walkers have a trail too! There is the other side of the river (connecting from Sac State) and Elvas for bikes. Walkers should have walkways too!!	8/7/2018 9:55 PM
25	I am opposed to paving the lower section. It isn't necessary when the upper portion is available and we certainly don't need to make it easier for the homeless to infiltrate our area.	7/17/2018 9:33 PM
26	Save Don't Pave!	7/4/2018 6:54 PM
27	Paving this trail is a waste of money - there is a paved trail on the other side of the river and nearby access to that trail via the Sac state Bridge	7/4/2018 1:20 PM
28	I'm biased. I would like to see this left as is.	7/3/2018 11:22 PM
29	Paving would be a travesty and an insult to nature	7/3/2018 7:41 PM
30	PLEASE SAVE DON'T PAVE. It is crucial to the integrity of River Park as a safe neighborhood.	7/3/2018 6:05 PM
31	Area between Bus 80 bridge and Glen Hall looks natural.	7/1/2018 9:52 PM
32	Until the homeless population and criminal activity around the river is controlled better we do not feel safe with the expansion of the trails. This will only invite and ease access to those who want to illegally camp and pollute our beautiful American River	6/21/2018 2:29 PM
33	I see frequent bike riders on the levee already. I was almost run by a large group of riders speeding around a blind curve at the park. Thank goodness one of the first riders yelled at me to get off the levee!	6/21/2018 12:36 PM
34	The continual urbanization of East Sac and River Park by the City of Sacramento, without regard to the impacts from traffic, access, and quality of life for residents, is abhorrent. With the commercialization of the Howe/Fair Oaks intersection and impacts on traffic there, along with the 'bicycle friendly' intersection at Carlson/H & J Sts (which the bicyclists seldom use, I might add) have impacted ingress and egress to River Park substantially. Millions of dollars spent to accommodate bicyclists is good judgement in Davis, perhaps, but not East Sac. This natural section of the river is the sole reason I moved to River Park when relocating to Sacramento 25 years ago. Seems a shame to ruin it, when it is already bike friendly enough. Aren't there better places to spend our money that everyone will benefit from?	6/21/2018 9:53 AM
35	I use the upper trail to bike and jog. I use the lower trail to walk my dog and job. I don't think we need two paved sides of the river. It's nice to have both options.	6/21/2018 8:59 AM
36	We bought a home in this neighborhood specifically due to the proximity to this unlaced section of the American River Parkway. It is very special.	6/21/2018 4:10 AM
37	Keep it wild	6/20/2018 9:49 PM
38	The biggest treasure of the levee path is that it is different from what exists on the rest of the parkway, in other words, it is not paved and is a more natural environment.	6/20/2018 9:48 PM
39	I worry about all the kids that play in the park and wander to the trail with bikes that potentially could be using the trail when paved.	6/18/2018 5:18 PM
40	Don't pave this trail! We like having some dirt trails nearby, nor do we want all the weekend bike traffic like other parts of the ARP where my friends have been hit by cyclists and seriously injured	6/18/2018 9:22 AM

41	The American River Parkway is the great jewel of Sacramento. It should be kept as a preserve for birds, river otters, foxes, and all the other animals that live there and native plants that grow there. "Improving it" destroys its natural beauty and ecological integrity. If you pave the trail, bicyclists will also start riding at high speeds on the narrow dirt paths and sooner or later someone walking will be seriously injured.	6/17/2018 10:25 PM
42	Do not destroy the wildness of this part of the Parkway by paving--removing trees and other vegetation to do so--nor by building bridges across the American River!!	6/17/2018 8:31 AM
43	Please don't pave it!!	6/16/2018 7:02 PM
44	The lower dirt trail with the close bordering trees and bushes is so serene and beautiful. I can not even bare to imagine it paved!	6/16/2018 5:20 PM
45	I hope this helps.	6/16/2018 11:33 AM
46	Thank you for the mailer. We attended the spring meeting at the school. We are very disturbed by the new information regarding the bridge at Glenn Hall	6/16/2018 8:35 AM
47	Paving the trail is not a well reasoned decision due to the additional law enforcement, maintenance and oversight required.	6/15/2018 6:33 PM
48	This area is the last nature area devoid of other uses (such as bicycle commuting/use). In my lifetime there have been efforts to prevent other uses (such as motorcycle dirt bike riding). Given the past efforts to eliminate the types of vehicular activity, it is unclear to me why is there now a movement to reverse this, especially when alternative trails are already in place/maintained to provide bicycle commute and recreational uses.	6/15/2018 3:52 PM
49	PAVE IT! Hell, Build that Bridge too! Ya buncha bastard NIMBYs	6/15/2018 3:20 PM
50	Save don't pave	6/15/2018 2:20 PM
51	Save don't pave	6/15/2018 1:09 PM
52	June 13 and 14, 2018, saw six homeless bicycle and cart transients accessing paved path at Sutter's Landing, one walker/camper.	6/15/2018 11:56 AM
53	Please save the unpaved glory of the American River	6/15/2018 11:20 AM
54	Keep up the pressure! Thank you	6/15/2018 8:33 AM
55	No	6/15/2018 8:20 AM
56	While I am concerned about the proposed changes (paving and bridge) the real unaddressed issue is that the park is not properly managed. If it were safe and campfree I would be more willing to support other changes, but I think proper safety and maintenance should come first.	6/15/2018 8:09 AM
57	Save Don't Pave!	6/15/2018 6:47 AM
58	There is already a paved bike trail easily accessible all the way downtown. Why must every inch of paradise be paved?	6/15/2018 6:28 AM
59	My family uses this trail every day. We live in River Park now, but for 20 years we would drive from Tallac Village to walk or ride bikes several times a week on the lower trail with our kids and dogs. Our dogs could tell where we were driving as we neared Glen Hall Park, and would stick their heads out the window in excitement. Back to nature is the way to go. Pavement takes away the aspect of multi-use. "If it ain't broke, don't 'fix' it." Save taxpayer money.	6/14/2018 7:59 PM
60	Pros-After the Spring RPNA meeting, I was persuaded that access to wheelchairs, strollers, tricycles, and a safer bike commute path are benefits to a paved path. Also, some who currently use the gravel top of the levee might move down to a paved area and reduce the looking into backyards of those houses along the levee. Also, some said crime is reduced where river paths are paved. Cons-scenic character would be altered and hazard of high speed bike racers. In balance, I no longer oppose paving.	6/14/2018 6:11 PM
61	Increased paved access would hwlp commuters, people in wheelchairs, families with strollers. The increased foot traffic will chase the homelss away from our neighborhood. Opposition to paving is pure NIMBYism	6/14/2018 4:30 PM
62	Why do we need TWO paved Bike Paths on the River????? I heard that some officials say , they don't care what we say, they know what is best for us!! WOW	6/14/2018 4:13 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

63	Harris et al say "they can't" pave the top of the levee. (See section near H St Bridge for anecdotal debunking) Why?	6/14/2018 4:05 PM
64	Love the trails! My quiet time early every morning.	6/14/2018 3:55 PM
65	I would like to see the lower trail remain unpaved.	6/14/2018 3:29 PM
66	I've fished, walked, swam this area for over 50 years. I was a lifeguard at Glenn Hall city pool. This area should be left as is for the those that enjoy nature and to keep it from becoming a homeless campground full of litter, needles and human waste !! KEEP IT AS IS !!!!	6/14/2018 3:11 PM
67	Don't pave this special spot.	6/14/2018 2:58 PM
68	Paving the lower levee trail will increase bike traffic and increase access for petty criminals to vandalize the parkway and people's homes. Police don't do anything about crime now and we shouldn't expect that to improve with the paved bike trail	6/14/2018 2:49 PM
69	Not sure how this will be an improvement or who wants it. It now has a pleasant local feel that bikers, amblers , baby pushers can use with little conflict.	6/14/2018 2:37 PM
70	This is one of my favorite places in Sacramento.	6/14/2018 2:34 PM
71	I sincerely hope you can SAVE this natural area of the American River...it's really all we have left. PLEASE, PLEASE DO NOT PAVE THIS SECTION OF THE PARKWAY!!!	6/14/2018 2:23 PM
72	Leave what little is left of the riparian forest for future generations.	6/14/2018 2:15 PM
73	I live on the levee side and simply enjoy sitting out in my backyard enjoying nature which will be disrupted by the proposed trail.	6/14/2018 1:30 PM
74	I would like to know what your plan for the homeless population is, other than act like they don't exist. I've seen no information about how this will affect the homeless - on either side - except to say it will keep them away. As residents of Sacramento, and users of the trail, I think it is our responsibility to also care for the homeless. Paving or not paving and saying it will "decrease homelessness" is not enough. Both sides need to come up or help with solutions.	6/14/2018 1:28 PM
75	For the sake of folks who commute by bike to dowbpntown, I favor paving the trail..	6/14/2018 12:18 PM
76	I have used this area for over 30 years, it will be a shame if the paving project goes through.	6/14/2018 12:17 PM
77	pave and rave. hike and bike.	6/14/2018 11:12 AM
78	A paved trail means more accidents. Hundreds of people cross this dirt road every day on bikes, foot, baby strollers, dogs, ice chest carriers, and fisherman. Paving ruins the whole idea of a park.	6/14/2018 11:07 AM
79	We walk on the upper part for ease but enjoy the natural setting that we can see on the lower part. We want to look at nature, not bicyclists!	6/14/2018 10:28 AM
80	If it ain't broke, don't fix it. Spend the \$\$ where it is more needed like helping homeless.	6/14/2018 9:54 AM
81	Paving one of the trails gives access and continuity to the trail system and encourages people to use alternative modes of transportation to get around the city. Framing the argument to prevent paving of any type is a NIMBY excuse to keep people out of a lilly white neighborhood because everyone knows that people on bikes are 'problem people'.	6/13/2018 12:52 PM
82	The River is a gorgeous ecosystem and I appreciate the natural beauty of the dirt lower levee trail. Paving it is just another raping of Mother Nature. When will our poor planet get a break from gratuitous destruction?	6/11/2018 3:18 PM
83	Paving the levee toe will forever change the character, feel and experience felt along this section of the riverine environment. It will be much more busy, hotter and less inviting to walkers.	6/10/2018 11:53 AM
84	The river is why we moved here. It is a part of our lives.	6/9/2018 3:09 PM
85	I am not sure who they want to use the paved trail. The American river flood control won't let me (lived here 55years) build stairs behind my house but they want it accessible to thousands who can easily get downtown across the river. Walking behind my house in nature if paved will be dangerous as spandex bikers go 20 miles per hour.	6/9/2018 2:59 PM
86	Please preserve this trail — it's so valuable to walkers (especially children and older citizens) who don't want to be mowed down by fast-moving bicycle traffic.	6/9/2018 2:02 PM
87	I am so annoyed with our local government officials. They don't listen and are not deserving of our trust.	6/9/2018 11:53 AM

88	I regularly ride my ride on the unpaved trail with no difficulties.	6/9/2018 11:49 AM
89	I love to be in God's nature, away from the cars and the roads and the hustle and bustle of city life.	6/9/2018 10:43 AM
90	No	6/9/2018 10:30 AM
91	I find the unpaved portion of the trail a chance to walk in and with nature. It is often the one and only chance I get in my busy week to reflect on and enjoy the natural world we have so close to home. I cannot enjoy the same on a paved bike trail with other users speeding past on their bicycles. They do not, and should not, overrule the peace and solitude of an early morning walk along our beautiful parkway.	6/9/2018 10:25 AM

EXHIBIT C

Baseline Recreational Weekday and Weekend Use Data on Glenn Hall Access Point to Paradise Beach

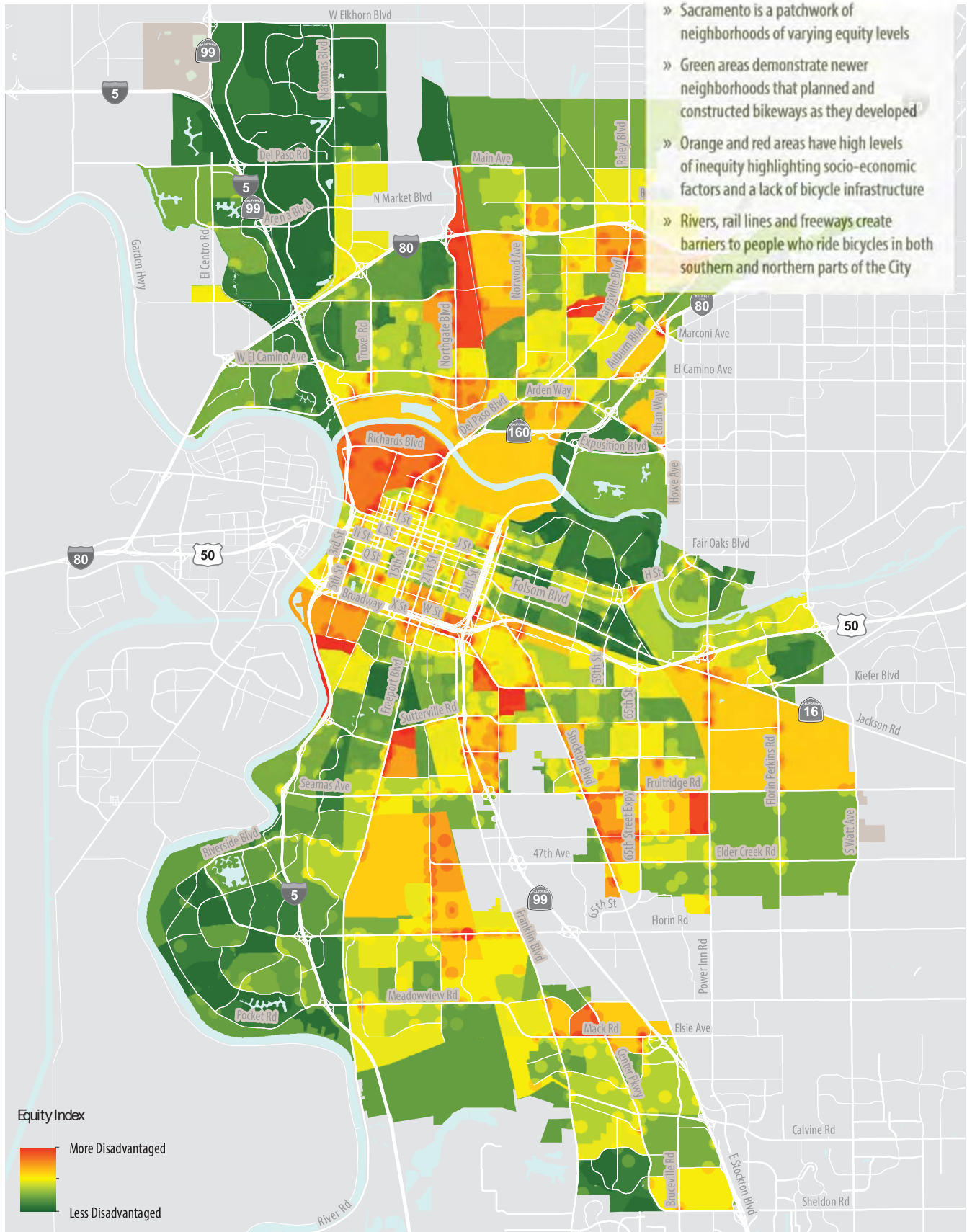
Week Day Shifts								Weekend Day Shifts							
Top of Levee								Top of Levee							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	11	0	2	2	1	0	16	5:30am - 7:30am	7	0	6	5	0	0	18
7:30am - 9:30am	11	0	2	7	1	ARFC truck	21	7:30am - 9:30am	3	2	3	13	31	0	52
9:30am - 11:30am	20	0	9	6	1	1 stroller, 1 baby in pack	36	9:30am - 11:30am	23	0	10	17	27	2 strollers	77
11:30am - 1:30pm	13	3	5	2	3	0	26	11:30am - 1:30pm	22	1	5	4	12	0	44
1:30pm - 3:30pm	11	0	2	1	2	1 ranger	16	1:30pm - 3:30pm	27	5	4	2	0	0	38
3:30pm - 5:30pm	6	0	1	4	4	0	15	3:30pm - 5:30pm	41	9	5	12	6	0	73
5:30pm - 7:30pm	33	1	9	7	10	0	60	5:30pm - 7:30pm	19	5	4	3	9	0	40
7:30pm - 9pm	11	0	2	1	3	0	17	7:30pm - 9pm							0
Total	116	4	32	30	25		207	Total	142	22	37	56	85		342
Bottom of Levee								Bottom of Levee							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	25	18	1	0	0	0	44	5:30am - 7:30am	11	0	8	3	2	0	24
7:30am - 9:30am	17	0	10	3	0	0	30	7:30am - 9:30am	37	0	27	13	2	0	79
9:30am - 11:30am	18	1	25	9	0	0	53	9:30am - 11:30am	17	0	11	10	3	0	41
11:30am - 1:30pm	9	3	5	0	0	0	17	11:30am - 1:30pm	5	2	7	5	6	0	25
1:30pm - 3:30pm	10	0	2	1	0	2 strollers	13	1:30pm - 3:30pm	35	0	8	2	9	0	54
3:30pm - 5:30pm	0	0	0	0	0	0	0	3:30pm - 5:30pm	10	0	0	0	7	0	17
5:30pm - 7:30pm	11	3	7	0	2	0	23	5:30pm - 7:30pm	22	3	15	3	3	0	46
7:30pm - 9pm	8	3	5	3	2	0	21	7:30pm - 9pm							0
Total	98	28	65	16	4		201	Total	137	5	76	36	32		286
Cross Traffic								Cross Traffic							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	14	0	13	4	0	0	31	5:30am - 7:30am	28	0	23	0	1	0	52
7:30am - 9:30am	23	0	30	0	2	0	55	7:30am - 9:30am	28	0	20	8	0	0	56
9:30am - 11:30am	31	1	25	2	6	2 strollers	65	9:30am - 11:30am	64	7	41	8	6	2 strollers	126
11:30am - 1:30pm	26	2	10	0	1	0	39	11:30am - 1:30pm	91	25	32	1	4	0	153
1:30pm - 3:30pm	69	11	11	0	1	4 strollers, 1 police officer, 1 ranger	92	1:30pm - 3:30pm	250	56	26	0	3	0	335
3:30pm - 5:30pm	85	14	21	0	1	0	121	3:30pm - 5:30pm	291	46	45	3	5	0	390
5:30pm - 7:30pm	119	11	34	2	2	0	168	5:30pm - 7:30pm	189	34	26	0	4	0	253
7:30pm - 9pm	76	2	18	0	0	0	96	7:30pm - 9pm							0
Total	443	41	162	8	13		667	Total	941	168	213	20	23		1365

EXHIBIT D

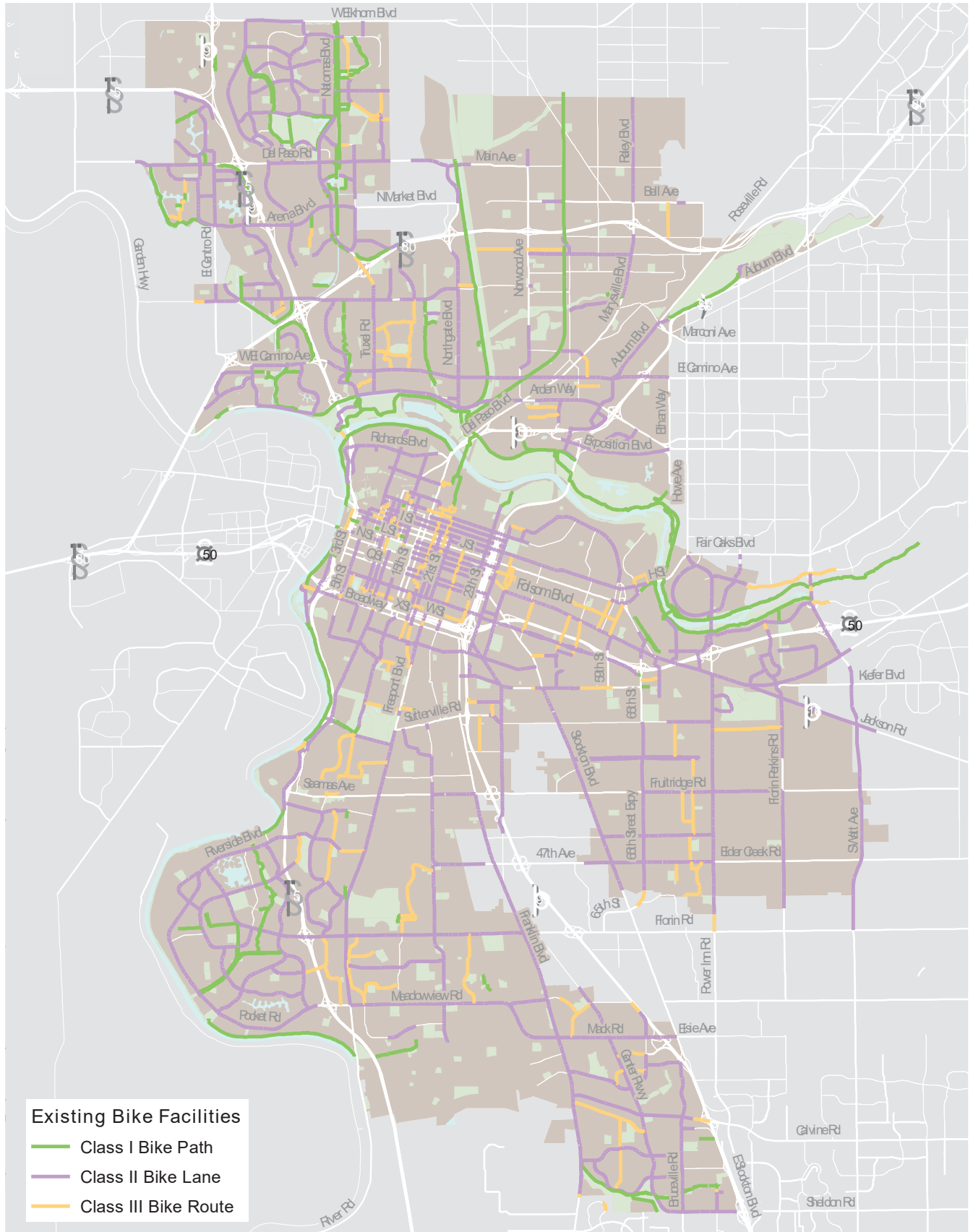
Equity Analysis Composite Index

Key Findings

- » Sacramento is a patchwork of neighborhoods of varying equity levels
- » Green areas demonstrate newer neighborhoods that planned and constructed bikeways as they developed
- » Orange and red areas have high levels of inequity highlighting socio-economic factors and a lack of bicycle infrastructure
- » Rivers, rail lines and freeways create barriers to people who ride bicycles in both southern and northern parts of the City



Existing Bikeways



- Existing Bike Facilities**
- Class I Bike Path
 - Class II Bike Lane
 - Class III Bike Route

EXISTING CONDITIONS

EXHIBIT E

Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle
(*Desmocerus californicus dimorphus*)



© Jon Katz and Joe Silveira/USFWS

May 2017

Service Contact

The Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) (Framework) was prepared by the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office. If you have questions regarding the Framework, please call (916) 414-6600. To download a copy of the Framework please visit:

https://www.fws.gov/sacramento/documents/VELB_Framework.pdf

Suggested Citation

U.S. Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and Wildlife Service; Sacramento, California. 28 pp.

1.0 Introduction

The U.S. Fish and Wildlife Service (Service) is issuing this Framework to assist Federal agencies and non-federal parties in evaluating the potential effects of their projects on the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB), listed as threatened under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). This framework can be consulted during the development of any project that may affect VELB or its habitat. It is intended to help project applicants assess potential effects to the VELB and develop measures to avoid, minimize, and compensate for adverse effects to the species or its habitat. It may also help determine whether those projects will require incidental take authorization through a section 7 consultation or a section 10(a)(1)(B) permit. Proposed projects that will have large landscape level impacts, are likely to provide a net conservation benefit, or will involve riparian restoration may need a different or more detailed analysis than what is provided here. Applicants and agencies proposing these, or similar types of projects, should discuss the project with the Service early in the planning process. The Framework may still provide guidance for an effects analysis, but these projects may exercise more flexibility when implementing conservation measures and compensation.

The primary goal of this document is to articulate a conceptual ecological model for the species. This framework represents the Sacramento Fish and Wildlife Office's current analytical approach for evaluating and assessing adverse effects to the VELB. It will be updated as new information becomes available. As always, the Service welcomes dialog and discussion with our partners in assessing impacts for particular projects and encourages project proponents to consult with the Service early in project development whenever possible.

The VELB is protected under the Act wherever it is found. Visual surveys for the VELB, which includes looking for adults and/or exit holes, are currently the only approved method of surveying for the species and are not entirely reliable for determining presence or absence (see below). Visual surveys, habitat assessments, and mitigation site monitoring do not require a section 10(a)(1)(A) recovery permit. Inquiries about other survey methods, recovery permits, and research should be directed to the Listing and Recovery Division at (916) 414-6600.

1.1 Previous Federal Actions

The VELB was listed as a threatened species under the Act on August 8, 1980 (Federal Register 45: 52803-52807). Concurrent with the final listing rule, two areas in Sacramento County were designated as critical habitat for the VELB (Appendix A). The first area, referred to as the "Sacramento Zone", is enclosed by California State Route 160 to the north, the Western Pacific railroad tracks to the west/southwest, and by Commerce Circle to the east. The second area, referred to as the "American River Parkway Zone", is actually two separate areas along the south bank of the American River in Rancho Cordova. A recovery plan for VELB was completed on June 28, 1984; however, due to a lack of information regarding VELB life history, distribution, and habitat requirements, the recovery plan

only described interim actions and not precise recommendations (Service 1984). For more information about VELB, its designated critical habitat, and the VELB recovery plan, please visit:

<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7850>.

On September 10, 2010, the Service was petitioned to delist the VELB and on August 19, 2011, the Service responded with a 90-day finding that determined the petition contained substantial information indicating that delisting VELB may be warranted (Federal Register 76: 51929-51931). On October 2, 2012, the Service published a proposed rule to delist VELB and to remove the species' critical habitat designation (Federal Register 77: 60238-60276). However, after receiving additional information regarding VELB, the Service did not delist the species and published the September 17, 2014, Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle From the Federal List of Endangered and Threatened Wildlife (Federal Register 79: 55874-55917) (Withdrawal Rule). The August 8, 1980, final listing rule and the Withdrawal Rule both described habitat loss as the primary threat to the species.

2.0 Life History

The VELB is a small (0.5 - 0.8 in.) wood-boring beetle in the *Cerambycid* family. It is sexually dimorphic and the females are indistinguishable from the more widespread California elderberry longhorn beetle (*Desmocerus californicus californicus*). Elderberry shrubs (*Sambucus* spp.) are the obligate larval host plants for the VELB (Collinge et al. 2001, Holyoak 2010) and their larvae go through several developmental stages (instars) within the elderberry shrub (Greenberg 2009). Eggs are laid individually on leaves or at the junctions of the leaf stalk and main stem (Barr 1991). Upon hatching, the larvae bore into the elderberry stem (Halstead and Oldham 1990) and create feeding galleries in the pith (Burke 1921, Barr 1991). Prior to pupation, the larvae creates an exit hole, plugs the hole with wood shavings, and returns to the gallery where it pupates (Halstead and Oldham 1990). Approximately 1 month later, the adult beetle emerges from the stem through the previously created exit hole (Burke 1921). Adult emergence, mating, and egg-laying, occurs in the spring and summer (March to July), typically coinciding with the elderberry flowering period (Burke 1921, Halstead and Oldham 1990). Under laboratory conditions, adult males typically live 4 to 5 days, while females can live up to 3 weeks (Arnold 1984). The only identifiable exterior evidence of elderberry use by VELB is the exit hole created by the larvae.

3.0 Range and Habitat Description

The VELB is protected wherever found. The current presumed range extends throughout the Central Valley (<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7850>). The range extends from approximately Shasta County in the north to Fresno County in the south including the valley floor and lower foothills. The majority of VELB have been documented below 152 meters (500 feet) in elevation. Areas above 152 meters (500 feet) with suitable habitat and known VELB occurrences in that drainage may contain VELB populations in certain circumstances. The Service can assist in determining the likelihood of occupancy above 500 feet.

3.1 Habitat

Historically, the Central Valley had large (3.2-8.0 km wide), undisturbed expanses of riparian vegetation associated with the watersheds that drained the west side of the Sierra Nevada Mountains and the east side of the Coast Mountain Range. These watershed systems were highly dynamic and their floodplains supported a wide corridor of riparian vegetation (Katibah 1984) in a diverse mosaic of structures and species assemblages from early successional to mature gallery forest (Gilbart 2009).

During the last 150 years California's Central Valley riparian forests have experienced extensive vegetation loss due to expansive agricultural and urban development (Katibah 1984), and in many places, have dwindled to discontinuous, narrow corridors. Natural areas bordering the rivers, which once supported vast tracts of riparian vegetation, became prime agricultural land (Thompson 1961). As agriculture and urbanization expanded in the Central Valley, needs for increased water supply and flood protection spurred water development and reclamation projects. Artificial levees, river channelization, dam building, water diversion, and heavy groundwater pumping have further reduced riparian vegetation to small, isolated fragments (Katibah 1984). In many places, flood control levees have been installed adjacent to and parallel with the river, effectively sectioning the riparian forest habitat into discrete communities on either side of the levee. In recent decades, riparian areas in the Central Valley have continued to decline as a result of ongoing agricultural conversion, urban development, stream channelization and channel hardening.

Elderberry shrubs are common in the Central Valley where they grow naturally in a variety of riparian and non-riparian vegetative communities (Vaghti and Greco 2007). Most elderberry presence within the Central Valley is determined by broad scale hydrologic regimes such as the relative elevation of floodplain and floodplain width, and secondarily by sediment texture and topography (Fremier and Talley 2009). Elderberry shrubs are most common on higher and older riparian terraces, where the roots of the plant are able to reach the water table and where the plants are not inundated for long periods (Talley 2005; Vaghti et al. 2009). Elderberry shrubs can be found on historic floodplain terraces above the river, on levees (both on the river and land sides), and along canals, ditches, and areas where subsurface flow provides water to elderberry roots. Elderberry shrubs typically occur in most vegetation communities that occupy historic and current floodplains and terraces, to the top of channel walls in deeply incised rivers (i.e., the Tuolumne and Stanislaus Rivers), and to the top of and on the land-side of levees where woody plants create savannas or patchy woodlands. Elderberry can be a canopy or subcanopy species depending on the hydrology, vegetation composition, or disturbance at a particular site and it can occur as individual shrubs, clumps, clusters, and groves. In non-riparian settings, elderberries occur either singly or in groups in valley oak and blue oak woodland and annual grasslands. It is not known whether elderberries in this setting are also associated with a shallow water table or other shallow water sources. In natural areas, elderberry shrubs have also been shown to grow best with little canopy cover from associated vegetation (Talley 2005).

The historic distribution of the VELB closely matched the distribution of the elderberry host plant, which was patchily found throughout the Central Valley riparian forests and occasionally adjacent uplands (non-riparian). The Service recognizes habitat for VELB as including both riparian and non-riparian areas where elderberry shrubs are present. Riparian habitat includes all areas that are either influenced by surface or subsurface water flows along streams, rivers, and canals (including the landside of levees) and areas that have the vegetation communities similar to those defined below.

Riparian vegetation communities within the California Central Valley can be described as valley-foothill forest habitat, which includes many different forest associations. Non-riparian habitat includes valley oak and blue oak woodland and annual grassland. The following habitat descriptions have been adapted from Mayer and Laudenslayer (1988) (<https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>).

Within California, valley-foothill riparian habitats occur in the Central Valley and the lower foothills of the Cascade, Sierra Nevada, and Coast mountain ranges. Riparian habitats show a wide range of both species and structural diversity. The valley-foothill riparian habitat is found in association with riverine, grassland, oak woodland, and agricultural habitats. Canopy height is about 30 meters in a mature riparian forest, with a canopy cover of 20 to 80 percent. Most trees are winter deciduous. There is a subcanopy tree layer and an understory shrub layer. Wild grapes (*Vitis californica*) frequently provide up to 50 percent of the ground cover and festoon trees to heights of 20-30 meters. Herbaceous vegetation constitutes about one percent of the cover, except in open areas where tall forbs and shade-tolerant grasses occur. Many non-native invasive species can also be found, and are sometimes common, in riparian habitat. Oak woodland, oak savanna, and elderberry savanna can occur as both riparian and non-riparian communities.

Dominant riparian canopy layer species include cottonwood (*Populus* sp.), California sycamore (*Platanus racemosa*), willow (*Salix* spp.) black walnut (*Juglans* spp.) and valley oak (*Quercus lobata*). Subcanopy trees include boxelder (*Acer negundo*) and Oregon ash (*Fraxinus latifolia*), and typical understory shrub layer plants include wild grape, wild rose (*Rosa* sp.), blackberry (*Rubus* sp.), poison oak (*Toxicodendron diversilobum*), and buttonbush (*Cephalanthus occidentalis*), and willows. The herbaceous layer consists of sedges (*Carex* sp.), rushes, grasses, miner's lettuce (*Claytonia* sp.), mugwort (*Artemisia* sp.), poison-hemlock (*Conium maculatum*), and hoary nettle (*Urtica dioica*). Many non-native woody species occur with elderberry including tree-of-heaven (*Ailanthus altissima*) and black locust (*Robinia pseudoacacia*)

Elderberry shrubs can be a common understory plant in both non-riparian valley oak and blue oak woodland habitats. Valley oak woodland is generally found at lower elevations than blue oak woodlands, but the two habitat types transition into each other in the lower foothill regions. Annual grasses and forbs dominate the herbaceous layer in both woodland habitat types (Mayer and Laudenslayer 1998) and both intergrade with annual grassland. Valley oak woodland can occur from savanna-like conditions to denser forest-like conditions, with tree density tending to increase along

natural drainages. Valley oak woodlands are almost exclusively dominated by valley oak, but may also contain sycamore, black walnut, blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and boxelder. Understory shrubs may include species such as, wild grape, toyon (*Heteromeles arbutifolia*), and California coffeeberry (*Frangula californica*). Blue oak woodlands can also occur from savanna-like conditions to denser forest-like conditions with a nearly closed canopy. Blue oak woodland is comprised of 85 to 100 percent blue oak trees, but may contain interior live oak and valley oak.

Common shrub associates include poison-oak, California coffeeberry, buckbrush (*Ceanothus cuneatus*), California buckeye (*Aesculus californica*), and manzanita (*Arctostaphylos* sp.). Within both of these habitats, elderberry may be found in the understory as well as in small clumps within the upland savanna. Elderberry shrubs are also often found away from riparian areas where ditches, irrigation, groundwater, or other features allow the plant to receive enough moisture and as ornamental plantings in regularly maintained landscaped areas.

3.1.1 Use of Riparian Habitat

Research suggests that the VELB occurs throughout the Central Valley in metapopulations (Collinge et al. 2001). Metapopulations are defined as a system of discrete subpopulations that may exchange individuals through dispersal or migration (Breininger et al. 2012, Nagelkerke et al. 2002). The VELB metapopulation occurs throughout contiguous intact riparian habitat as subpopulations that shift spatially and temporally within drainages, resulting in a patchwork of occupied and unoccupied habitat. Removal of suitable habitat (whether occupied or unoccupied) can increase the distance between occupied and unoccupied patches. Because its physical dispersal capability is limited, this fragmentation decreases the likelihood of successful colonization of unoccupied habitat (Collinge et al. 2001). As a consequence, the subpopulations are more vulnerable to stochastic events that may reduce or eliminate the subpopulation. The loss of multiple subpopulations can have an adverse impact on the long-term persistence and health of the metapopulation. Therefore, maintaining contiguous areas of suitable habitat is critical for maintaining the VELB.

At the local level, it appears that much of the variation in VELB occupancy of elderberry shrubs results from variables such as elderberry condition, water availability, elderberry density, and the health of the riparian habitat (Talley et al. 2007). This research indicates that healthy riparian systems supporting dense elderberry clumps are the primary habitat of VELB (Barr 1991, Collinge et al. 2001, Talley et al. 2006, Talley et al. 2007). Elderberry shrubs typically have a clumped distribution across the landscape (Figure 1) although they can occur singly. Upon emergence, VELB typically stay within the local clump (Talley et al. 2007). Talley et al. (2007) found that much of the time, distances between stems with exit holes averaged 25-50 meters (65-165 feet) apart. At larger scales, average distances between these occupied clumps ranged from 200 meters (656 feet) up to 800 meters (2,625 feet) (Figure 1).

Because the elderberry is the sole host plant of the VELB, any activities that adversely impact the elderberry shrub may also adversely impact the VELB. Adverse impacts to elderberry shrubs can occur

either at a habitat scale or at an individual shrub scale. Activities that reduce the suitability of an area for elderberry plants or elderberry recruitment and increase fragmentation may have adverse impacts to mating, foraging, and dispersal of VELB. The patchy nature of VELB habitat and habitat use makes the species particularly susceptible to adverse impacts from habitat fragmentation.

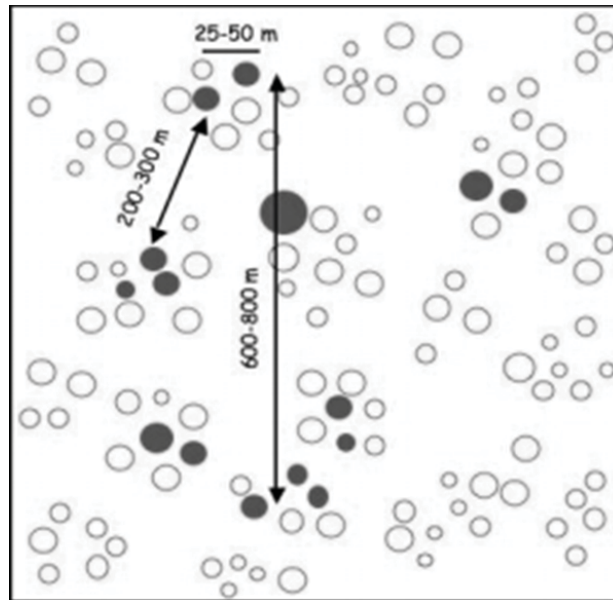


Figure 1. Schematic diagram of the spatial population structure of the valley elderberry longhorn beetle. Open circles represent unoccupied elderberry shrubs, closed circles are occupied by the valley elderberry longhorn beetle. Aggregation sizes and distances used are those found on the American River Parkway, where occupied clumps are approximately 25-50 meters apart, distances between aggregations of occupied clumps are approximately 200-300 meters, and the extent of the cluster of aggregations is 600-800 meters (Talley et al. 2006).

Determining whether an individual plant or clump is occupied by VELB can be challenging. Often the only external evidence that a VELB is present is the small exit hole made by the larva as it leaves the stem. Traditional exit hole surveys can help identify the past use of a particular shrub by VELB, but not its current occupancy. This difficulty makes assessing the likelihood of presence of individual VELB difficult. However, Talley et al. (2007) found that 73% of shrubs with old exit holes also had new exit holes, indicating that presence of an exit hole in the shrub increases the likelihood that that shrub or nearby shrubs are occupied. Therefore, impacts to individual shrubs with exit holes are reasonably likely to result in impacts to individual VELB, but the likelihood of adverse effects may not always be ascertained simply by the presence of exit holes (or the lack of). A more thorough analysis of nearby occurrences, surrounding habitat, and elderberry density is needed to fully address adverse impacts. In general, because of the difficulty in detecting VELB, the patchy nature of its distribution, and the importance of unoccupied habitat to maintain connectivity between VELB metapopulations, any

impacts to riparian habitat with elderberry shrubs present are likely to result in adverse effects to VELB.

3.1.2 Use of Non-Riparian Habitat

Much of the existing research has focused on the VELB's use of riparian habitat. In non-riparian habitats, a patchwork of individual shrubs provides opportunity for VELB occupancy, but it is unknown if the movement and distribution patterns remain consistent with the patterns found in riparian areas. In non-riparian areas, adverse effects to of VELB are likely to occur as a result of impacts to any elderberry shrub with exit holes, and adverse effects may result from disturbance to elderberry shrubs reasonably close to riparian areas or known VELB populations.

4.0 Occupancy Determination in Non-Riparian Habitat and Appropriate Surveys

The decision tree shown in Figure 2 is used by the Sacramento Fish and Wildlife Office to assess the effect of any proposed project on the VELB. It is recommended that proposed project sites within the range of the VELB be surveyed by a qualified biologist for the presence of elderberry shrubs. If elderberry shrubs are found on or within 50 meters (165 feet) of the project site, we recommend that the habitat be assessed to determine if the project area is in riparian or non-riparian habitat. Depending on the size, duration and/or type of proposed project, the larger area surrounding the project site may also be surveyed for the presence and number of elderberry shrubs.

If the project site is non-riparian and contains elderberry shrubs, we use exit hole surveys to evaluate the site for potential occupancy. Exit hole surveys are not essential in riparian areas, but may be conducted in order to assess the level and significance of adverse effects. The presence of exit holes in a shrub increases the likelihood that the shrub is occupied by VELB; however, a lack of exit holes does not preclude occupancy by the VELB. In the absence of exit holes we recommend that a biologist evaluate the project area using the following criteria (also shown in Figure 2):

1. Is there a riparian area, elderberry shrubs, or known VELB records within 800 meters (2,526 feet) of the proposed project?
Isolated, non-riparian elderberry clumps are less likely to be occupied or become colonized by VELB and those beyond 800 meters (2,526 feet) from the nearest elderberry clump become increasingly less likely to be occupied. Therefore, a qualified biologist can assess the distance of the elderberry shrub from the nearest riparian area, elderberry shrub, and known occupied elderberry location.
2. Was the site continuous with a historical riparian corridor?
Fragmentation of riparian corridors in the Central Valley has resulted in the isolation of elderberry shrubs or clusters that may provide important linkages between or within riparian corridors. A qualified biologist can evaluate the project location in the context of the historical riparian system. Isolated elderberry clumps that were part of a historic riparian vegetative community may still support VELB.

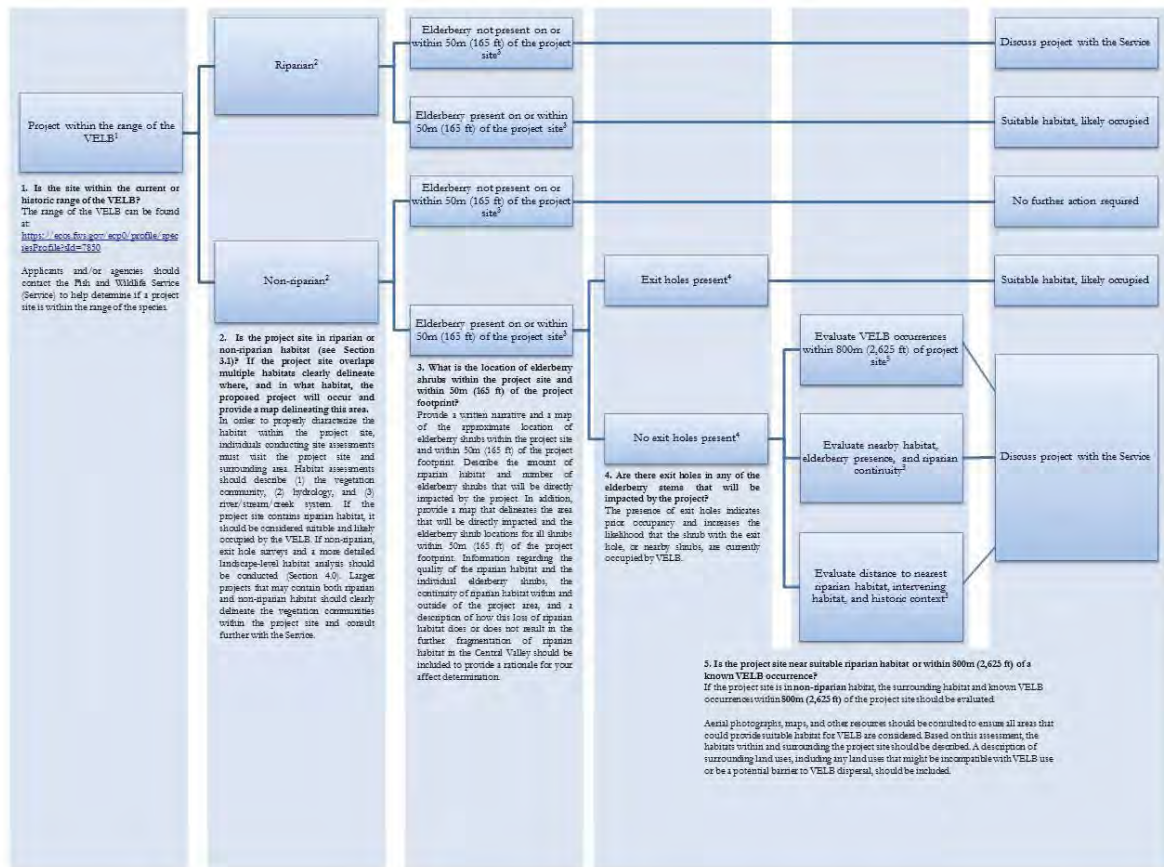


Figure 2. Decision tree to determine the likelihood of a particular elderberry shrub being occupied by valley elderberry longhorn beetle.

5.0 Conservation Measures

We encourage the development of proposed project designs that avoid riparian habitat and/or elderberry shrubs whenever possible. If elderberry shrubs occur on or within 50 meters (165 feet) of the project area, adverse effects to VELB may occur as a result of project implementation. If the project may affect VELB or its habitat, appropriate avoidance and minimization measures are recommended.

5.1 Avoidance and Minimization Measures

The following measures are recommended for incorporation into a proposed project to avoid and minimize effects to VELB and/or its habitat. Not all measures may be appropriate for every project, and agencies/applicants should coordinate with the Service to determine which measures may be needed. The text in this section and Section 5.2 is intended to provide language that may be used by agencies/applicants to describe avoidance and minimization measures for their proposed project.

Fencing. All areas to be avoided during construction activities will be fenced and/or flagged as close to construction limits as feasible.

Avoidance area. Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line, depending on the type of activity.

Worker education. A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance.

Construction monitoring. A qualified biologist will monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring will depend on the project specifics and should be discussed with the Service biologist.

Timing. As much as feasible, all activities that could occur within 50 meters (165 feet) of an elderberry shrub, will be conducted outside of the flight season of the VELB (March - July).

Trimming (See 5.3). Trimming may remove or destroy VELB eggs and/or larvae and may reduce the health and vigor of the elderberry shrub. In order to avoid and minimize adverse effects to VELB when trimming, trimming will occur between November and February and will avoid the removal of any branches or stems that are ≥ 1 inch in diameter. Measures to address regular and/or large scale maintenance (trimming) should be established in consultation with the Service.

Chemical Usage. Herbicides will not be used within the drip-line of the shrub. Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method.

Mowing. Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.

Erosion Control and Re-vegetation. Erosion control will be implemented and the affected area will be re-vegetated with appropriate native plants.

5.2 Transplanting

In order to protect VELB larvae to the greatest extent possible, we recommend that all elderberry shrubs with stems greater than 1 inch in diameter be transplanted under the following conditions:

1. If the elderberry shrub cannot be avoided.
2. If indirect effects will result in the death of stems or the entire shrub.

Removal of entire elderberry plants without disturbance to the surrounding habitat is uncommon, but may occur on certain projects. The removal may either include the roots or just the removal of the aboveground portion of the plant. We encourage project applicants to attempt to remove the entire root ball and transplant the shrub, if possible. In order to minimize the fragmentation of VELB habitat, the Service encourages applicants to relocate elderberry shrubs as close as possible to their original location. Elderberry shrubs may be relocated adjacent to the project footprint if: 1) the planting location is suitable for elderberry growth and reproduction; and 2) the project proponent is able to protect the shrub and ensure that the shrub becomes reestablished. If these criteria cannot be met, the shrub may be transplanted to an appropriate Service-approved mitigation site. Any elderberry shrub that is unlikely to survive transplanting because of poor condition or location, or a shrub that would be extremely difficult to move because of access problems, may not be appropriate for transplanting. The following transplanting guidelines may be used by agencies/applicants in developing their VELB conservation measures:

Monitor. A qualified biologist will be on-site for the duration of transplanting activities to assure compliance with avoidance and minimization measures and other conservation measures.

Exit Holes. Exit-hole surveys will be completed immediately before transplanting. The number of exit holes found, GPS location of the plant to be relocated, and the GPS location of where the plant is transplanted will be reported to the Service and to the California Natural Diversity Database (CNDDDB).

Timing. Elderberry shrubs will be transplanted when the shrubs are dormant (November through the first two weeks in February) and after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the shrub and increase transplantation success.

Transplanting Procedure. Transplanting will follow the most current version of the ANSI A300 (Part 6) guidelines for transplanting (<http://www.tcia.org/>).

Trimming Procedure. Trimming will occur between November and February and should minimize the removal of branches or stems that exceed 1 inch in diameter.

5.3 Impacts to Individual Shrubs

In certain instances, impacts to elderberry shrubs, but not the surrounding habitat may occur. This could take the form of trimming or complete removal of the plant. Trimming elderberry shrubs may result in injury or death of eggs, larva, or adults depending on the timing and extent of the trimming. Since the larva feed on the elderberry pith while they are developing, any trimming that could affect the health of the plant and cause the loss of stems may kill any larva in those stems. No adverse impacts to the VELB will occur if trimming does not remove stems/branches that are ≥ 1 inch in diameter and is conducted between November and February. Trimming that occurs outside of this window or removes branches ≥ 1 inch in diameter may result in adverse effects to VELB. In order to assess the risk of take from trimming activities, we recommend the following be evaluated:

1. Conduct an exit hole survey on the plant
2. Evaluate the surrounding habitat (riparian vs. non-riparian).
3. Evaluate the potential suitability of the plant to provide VELB habitat.
 - a. Riparian plants are much more likely to be occupied or colonized by VELB.
 - b. Plants in non-riparian locations should be evaluated using the criteria in Figure 2.

6.0 Compensatory Mitigation

For all unavoidable adverse impacts to VELB or its habitat, we recommend that lead agencies and project applicants coordinate with the Service to determine the appropriate type and amount of compensatory mitigation. For plants in riparian areas, compensation may be appropriate for any impacts to VELB habitat. In non-riparian areas, compensation is typically appropriate for occupied shrubs (Figure 2). Appropriate compensatory mitigation can include purchasing credits at a Service-approved conservation bank, providing on-site mitigation, or establishing and/or protecting habitat for VELB.

It is recommended that the permanent loss of VELB habitat be replaced with habitat that is commensurate with the type (riparian or non-riparian) and amount of habitat lost. Suitable riparian habitat may be replaced, at a minimum of 3:1 for all acres that will be permanently impacted by the project (Table 1). Suitable non-riparian habitat may be replaced, at a minimum of 1:1 for all acres that will be permanently impacted by the project (Table 1). We typically recommend that any shrub that will be adversely impacted by the project be transplanted to a Service-approved location.

We encourage agencies and/or applicants to propose appropriate compensation for all individual shrubs that will be impacted by the project. Strong compensation proposals consider the location of the plant (riparian or non-riparian) and the potential for the plant to be occupied by VELB (exit

holes present, likely occupied). Projects that only directly affect individual shrubs may consider replacing habitat based on the amount of effects that occur, the location of the shrub (riparian or non-riparian), and the presence of exit holes (non-riparian only) (Table 2). Impacts to individual shrubs in riparian areas may be replaced by the purchase of 2 credits at a Service-approved bank for each shrub that will be trimmed regardless of the presence of exit holes. If the shrub will be completely removed by the activity, the entire shrub may be transplanted to a Service-approved location in addition to the credit purchase. We recommend impacts to individual shrubs in non-riparian areas be replaced through a purchase of 1 credit at a Service-approved bank for each shrub that will be trimmed if exit holes have been found in any shrub on or within 50 meters (165 feet) of the project area. If the shrub will be completely removed by the activity, we suggest that the entire shrub be transplanted to a Service-approved location in addition to a credit purchase.

Table 1. Potential Valley Elderberry Longhorn Beetle Habitat-Level Compensation Examples

Habitat	Compensation Ratio ¹	Total Acres of Disturbance	Acres of Credits	Total Credit Purchase ²
Riparian	3:1	1.2 acres	3.6 acres	87.8
Non-riparian	1:1	0.5 acre	0.5 acre	12.1

¹ acre(s) of credits: acre(s) of disturbance

² One credit (unit) = 1,800 sq. ft.

Table 2. Valley Elderberry Longhorn Beetle Shrub-Level Impact Compensation

Habitat	Compensation Ratio ¹	If the entire shrub will be removed
Riparian	2:1	Transplant the shrub + 2:1 compensation
Non-riparian (exit holes present)	1:1	Transplant the shrub + 1:1 compensation

¹ number of credits: number of shrubs trimmed

² One credit (unit) = 1,800 sq. ft. or 0.041 acre

The compensation scenarios in Table 1 are examples of the amount of habitat (riparian or non-riparian) that may be appropriate to compensate for a project’s adverse impacts. Additional examples can be found in Appendix B. The amount of compensation deemed appropriate to offset effects to VELB will take into consideration the effects of the project and desired conservation outcome. The compensation examples in this Framework are for illustrative purposes only. Alternative methods for determining compensation should be coordinated with the Service. Currently, compensation at Service-approved VELB banks is partitioned into 1,800 sq. ft. basins.

Under this scheme, a single credit equals 1,800 sq. ft. or 0.041 acres. In order to calculate the total compensation credits needed for impacts to VELB, the total amount of disturbance in square feet should be calculated, the appropriate ratio applied, and the total number divided by 1,800.

We recommend that any project that occurs in suitable habitat (riparian or non-riparian) compensate for that loss in proportion to the total amount of habitat that will be disturbed as a result of project implementation. The acreage of habitat lost can be assessed based on all permanent surface disturbance including access routes and staging areas.

6.1 Compensatory Mitigation Proposals

If the lead agency or applicant is not purchasing credits at a Service-approved bank, they may compensate for habitat loss through on- or off-site mitigation. The Service has issued interim standards for the long-term management and protection of mitigation sites (https://www.fws.gov/endangered/improving_esa/). Those proposing on-site compensation, off-site habitat creation/enhancement, or those proposing to create a Service-approved conservation bank should work closely with the Service during the planning and development process. It is recommended that all plans adhere to the following criteria that are specific to VELB:

Site Selection and Development. Proposals using a strategic approach to ecosystem protection and restoration that will promote VELB metapopulation dynamics are preferred. Criteria for a suitable mitigation site may include abiotic factors such as soils, water availability, and prior land use as well as the proximity of the site to existing riparian habitat and known VELB records. Appropriate site selection is critical for achieving conservation success. A site that has incompatible soils or hydrology may not be able to meet the success criteria. Proposals that protect or enhance existing riparian habitat are preferred and the proposal should detail what, if any, measures will be needed to restore the site to ensure that it is suitable for elderberry survival.

Planting Plan. We recommend all proposals be designed to meet the desired distribution and density for elderberry shrubs and native associates that will be planted at the mitigation site in accordance with 1-3 below. The planting plan should be specific to the site and factors that will influence the success of the elderberry and native associate plantings. The plan should seek to establish a diverse natural riparian community with a complex vegetation structure. Native associates should include a mix of woody trees, shrubs, and other natives appropriate for the site. Stock of either seedlings or cuttings should be obtained from local sources. The number of elderberry and native associate plantings should be based on the desired distribution and density outcome proposed in the planting plan. The Service encourages planting plans that promote spatial and structural diversity within the mitigation site. We recommend planting plans be designed to meet the following goals:

1. Maximize the number of stems between 2 (0.8 inches) and 12 centimeters (4.7 inches). Talley et al. (2007) found stems within this size range had the largest proportion of VELB exit holes.
2. Minimize competition for sunlight and water. Native associates, particularly trees, can influence the long-term success of the mitigation site. Native associates should be planted at a ratio of 1 native associate for every 3 elderberry plants to avoid competition for sunlight and water with the elderberry plantings.
3. Achieve an average elderberry stem density of 240 stems/acre. This was the average stem density Vaghti et al. (2009) found for elderberry shrubs along the major river systems within the VELB range. The Service and lead agency or applicant should assess this goal after 5 years.

Buffer. A buffer area may be needed between the mitigation site and adjacent lands, depending on adjacent land-use. An appropriate buffer distance can be developed in coordination with the Service when proposing compensation. Although the buffer would be considered part of the mitigation site, the acreage of the buffer may not be considered compensation.

Success Standards. We recommend that the site management plan and/or planting plan specify timelines for achievement of the success standards for the site, as stated below. These timelines should reflect the impacts that the site is intended to compensate for, the specific abiotic factors at the site that could influence establishment, or any credit release criteria that need to be met. Standards for VELB mitigation banks can be found in Appendix C. These standards were developed specifically for mitigation banks, but can be broadly applied to all compensatory mitigation for VELB. Some of the timelines described in the standards may not be applicable in all situations, but agencies and applicants should work with the Service to develop success standards that best meet the goals of their individual compensatory mitigation proposal. We suggest that all compensatory mitigation meet the following:

1. A minimum of 60% of the initial elderberry and native associate plantings must survive over the first 5 years after the site is established. As much as feasible, shrubs should be well distributed throughout the site; however, in some instances underlying geologic or hydrologic issues might preclude elderberry establishment over some portion of the site. If significant die back occurs within the first 3 years, replanting may be used to meet the 60% survival criteria. However, replanting efforts should be concentrated to areas containing surviving elderberry plants. In some instances overplanting may be used to offset the selection of a less suitable site.
2. After 5 years, the site must show signs of recruitment. A successful site should have evidence of new growth on existing plantings as well as natural recruitment of elderberry. New growth is characterized as stems < 3 cm (1.2 inches) in diameter. If

no signs of recruitment are observed, the agency or applicant should discuss possible remedies with the Service.

Monitoring. Specific monitoring protocols and reporting timelines for the mitigation site should be developed in coordination with the Service. The population of VELB, the general condition of the mitigation site, and the condition of the elderberry and associated native plantings in the mitigation site should be monitored at appropriate intervals. In any survey year, a minimum of two site visits between February 14 and June 30 of each year must be conducted by a Service-approved biologist. Surveys must include:

1. A search for VELB exit holes in elderberry stems, noting the precise locations and estimated ages of the exit holes. The location of shrubs with exit holes should be mapped with a GPS. Because adult VELB are rarely encountered, targeted surveys for adults are not required. However, surveyors should record all adult VELB seen. Record photographs should be taken for all observations of adult VELB and their location mapped with a GPS. All exit hole or adult VELB observations should be reported to CNDDDB.
2. An evaluation of the success standards outlined above.
3. An evaluation of the adequacy of the site protection (fencing, signage, etc.) and weed control efforts in the mitigation site. Dense weeds and grasses such as Bermuda grass (*Cynodon dactylon*) are known to depress elderberry recruitment and their presence should be controlled to the greatest extent practicable.
4. An assessment of any real or potential threats to VELB and its host plant, such as erosion, fire, excessive grazing, off-road vehicle use, vandalism, and excessive weed growth.
5. A minimum of 10 permanent photographic monitoring locations should be established to document conditions present at the mitigation site. Photographs should be included in each report.

Reports. A reporting timeline should also be developed during the development of monitoring protocols for the mitigation site. Reports submitted to the Service should present and analyze the data collected from the monitoring surveys. Copies of original field notes, raw data, photographs, and a vicinity map of the site (including any adult VELB sightings and/or exit hole observations) of the mitigation site must be included with the report. Copies of the report (including any applicable Service file number) must be submitted within 6 months of the survey to the Service (Field Supervisor) at the following address:

U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825.

7.0 Other Activities

The Framework may not be applicable for restoration, floodway maintenance, and other large scale habitat modification activities. These activities and the potential effects to VELB and its habitat should be considered on a project-by-project basis and discussed with the Service. We recommend that project proponents consider the effects to the species on a landscape level and ultimately seek to protect, preserve, and restore the continuity of VELB habitat. These and similar activities that may adversely impact the VELB and its habitat at landscape scales should consider avoidance, minimization, and compensation strategies that are appropriate for the specific project.

Compensation may not be appropriate for those projects that impact only individual elderberry shrubs or result in a net benefit to VELB. Some possible conservation measures to consider for these large scale projects include:

1. Transplanting all affected elderberries to a similar on-site location.
2. Maintaining patches of appropriate habitat in areas where large-scale removal of elderberry shrubs will occur.
3. Scale trimming, removal, and other activities that allow VELB to persist within the area.

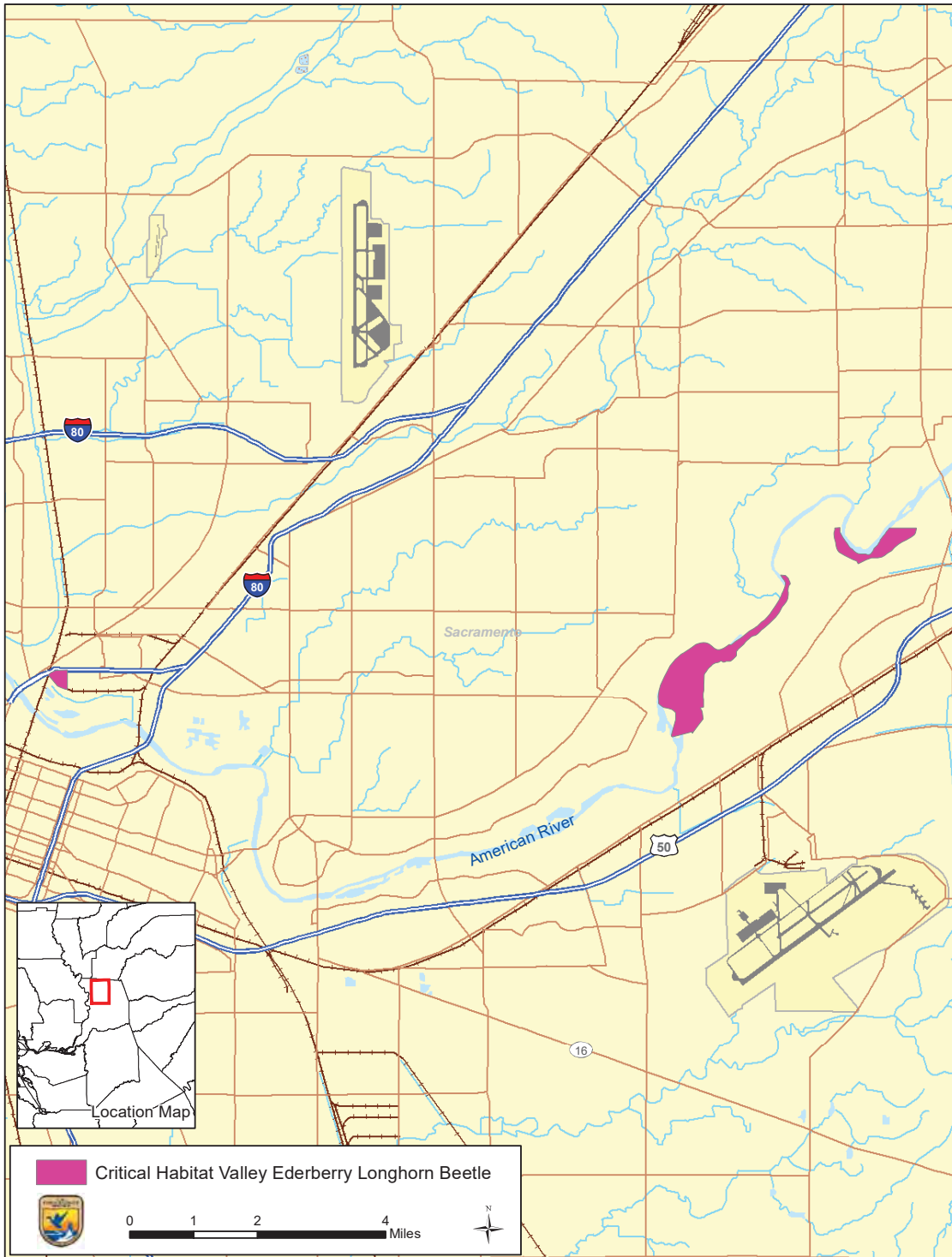
Literature Cited

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- Vaghti, M.G., M. Holyoak, A. Williams, T.S. Talley, A.K. Fremier, and S.E. Greco. 2009. Understanding the ecology of blue elderberry to inform landscape restoration in semiarid river corridors. *Environmental Management* 43:28–37.
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Appendix A. Valley Elderberry Longhorn Beetle Critical Habitat



Appendix B. Compensation Examples

#1. An applicant is proposing to repair a bridge over Putah Creek. The project will require excavation within the channel and a re-contour of approaches to the new bridge. Pre-construction surveys noted that 3 elderberry shrubs in riparian habitat were within the project area, 2 of these shrubs will be directly impacted by the excavation work. The third shrub will be avoided using the appropriate avoidance and minimization measures. During the project, 0.5 acre of riparian habitat will need to be removed. The applicant has proposed to transplant the 2 directly affected elderberry shrubs to a Service-approved conservation bank and purchase 1.5 acres of credits at the conservation bank.

Conclusion: The project contains 3 elderberry shrubs on or within 50m of the project area. The project will result in the fragmentation of riparian habitat through the loss of 0.5 acres of riparian habitat. The compensation of 3:1 is appropriate for this project because it will be removing riparian habitat. The transplanting of the shrubs is appropriate because they would be directly impacted by the project.

#2. A new bike path will be constructed through an oak woodland/elderberry savanna. Pre-construction surveys identified one elderberry shrub within 0.10 acre of oak woodland/elderberry savanna that will be adversely affected by the proposed action. Exit holes were found on the elderberry shrub. The applicant also identified a conservation area that is suitable for oak woodland/elderberry savanna. Associated natives adjacent to the conservation area are blue oak (*Q. douglasii*), interior live oak, sycamore, poison oak, and wild grape. The applicant and the Service have agreed that transplanting the elderberry shrub into the conservation area and planting the conservation area with non-riparian habitat at a 1:1 ratio is appropriate to off-set the impacts to the VELB from the construction of this project.

Conclusion: The project contains 1 elderberry shrub on or within 50m of the project area. The project will result in the loss of 0.10 acre of non-riparian, elderberry savanna habitat. The proposed compensation of planting the identified conservation area at a 1:1 ratio using the species listed above is appropriate for the project since it will be removing non-riparian habitat. The transplanting of the one shrub into the conservation area is appropriate because it will be directly impacted by the project and the presence of exit holes suggests it was recently occupied by VELB.

The total area required for the conservation plantings are a minimum of 1,800 sq. ft. for one to five elderberry seedlings and up to 5 associated natives. A total of 0.10 acre ($1 \times 0.10 = 0.10$ acre = 4,356 square feet) will be required for the plantings. The conservation area will be seeded and planted with native grasses and forbs, and closely monitored and maintained throughout the monitoring period (see Section 5).

#3. Construction of a cell tower will require the removal of two isolated elderberry shrubs and the temporary loss of a minimal amount of grassland habitat. The project location is 3 miles east of the Feather River. The project site is not near a water course or any other shrubs within 800m. The shrubs were surveyed and do not exhibit exit holes.

Conclusion: The project area contains two non-riparian shrubs on or within 50m of the project area. Since both shrubs lack exit holes, other factors need to be considered to determine the likeliness of occupancy. A review of occurrence data reveals there are no known VELB occurrences within 800m of the project site and historical imagery shows the project site has never been a part of, or connected to, riparian habitat. Based on the specifics of this scenario, the two elderberry shrubs within the project area are not likely to be occupied..

Appendix C. VELB Mitigation Bank Standards

The following was prepared by Sacramento Fish and Wildlife Office conservation banking staff as part of an effort to standardize and make transparent the process for establishing Valley Elderberry Longhorn Beetle (VELB) conservation banks. The credit release schedule and performance standards are intended to be practical, while promoting the success of the plantings. This document is not a comprehensive review of VELB literature, and is subject to revision.

Credit Release Schedule

The credit release schedule and performance standards are designed to ensure that the VELB conservation bank plantings will be self-sustaining after the irrigation is turned-off (before the start of year 5), so the credit release schedule is longer than it would be without irrigation, and credits will not be released prior to the year indicated. Credits will be released per the following schedule, slightly modified from the May 2008 Statewide Banking Template:

Table 1. Credit release schedule.

Credit Release	Action	Credits to be Released
1	Bank Establishment	15%
2	Service Acceptance of As-builts*	25%
3	Meet Year 2 Performance Standards, and endowment funded 15%	15%
4	Meet Year 3 Performance Standards, and endowment funded 40%	15%
5	Meet Year 5 Performance Standards, and endowment funded 70%	15%
6	Meet Year 7 Performance Standards, and endowment funded 100%	15%

*Review to be accomplished within 60 days of receipt of complete as-built drawings.

Note: endowment can be funded on an accelerated schedule, if the bank sponsor so desires.

Performance Standards

Performance standards apply to the credit releases upon the third release. If the elderberry population is too large for direct census, then sampling methods may be used, and they must be thoroughly described in the proposed bank's development and management plans, and will be subject to Service approval. Sample size must be adequate to assess the health of the population, as determined by a qualified plant ecologist¹. Qualifications should be submitted with proposal.

Performance standards are based on survival without re-planting, and on baseline conditions of health and vigor of the elderberry plantings. If performance standards are not met, then the bank sponsor will meet with the Service to determine a course of action.

Table 2. Performance Standards.

Credit Release #	Monitoring Year	Performance Standards
3	Year 2	<ul style="list-style-type: none"> • 60% survival of original planted elderberries without re-planting², and all survivors categorized as “normal”³ to “exceptionally vigorous”³ • 60% survival of associates without re-planting² • Irrigation ok
4	Year 3	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting², and all survivors categorized as “normal”³ to “exceptionally vigorous”³ • Maintain 60% survival of associates without re-planting² • Irrigation ok
5	Year 5	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting² • Maintain 60% survival of associates without re-planting² • No more than 10% decline in overall health of <i>Sambucus</i> from baseline conditions⁴ • No irrigation⁵ • Fertilizer application prohibited
6	Year 7	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting² • Maintain 60% survival of associates without re-planting² • No more than 10% decline in overall health of <i>Sambucus</i> from baseline conditions⁴ • No irrigation⁵ • Fertilizer application prohibited

¹Qualified plant ecologist is defined as a person who:

- a) holds a bachelor’s degree or higher in botany, plant ecology or related plant science, or demonstrates experience equivalent to such education, and
- b) shows demonstrated expertise in ecological sampling/experimental design beyond obtaining an academic degree, and
- c) has 2+ years experience in collecting and analyzing botanical field data beyond obtaining an academic degree

²If re-planting, then time-clock begins again, with no additional credit releases until performance standards for the monitoring year in which the re-planting occurred has been met. Re-planting must be approved by the Service in advance.

³See Vigor and Vitality, below.

⁴Years 2, 3 and 4 are used to establish the baseline condition. See Baseline Conditions, below.

⁵If irrigation continues beyond the end of monitoring year 4, credit release #'s 5 and 6 will be delayed beyond the years indicated in Table 2.

Vigor and Vitality

Observations made by a qualified plant ecologist during the late spring/early summer will be used to determine the vigor and vitality of surviving shrubs for the year 2 and 3 performance standards, and photographs should clearly document this. The following scale will be used (from Mueller-Dombois and Ellenberg, 1974):

- Very feeble, never flowering/fruitle
- Feeble
- Normal
- Exceptionally vigorous

Baseline Conditions

Observations made by a qualified plant ecologist during late spring/early summer will be used to determine the baseline conditions of the planted elderberries. Sampling is allowable where the population of planted elderberries is extensive, and must be thoroughly described in the bank's development and management plans. The following measurements will be used to determine baseline conditions (Elzinga, et. al., 1998):

- Height
- # of inflorescences per shrub
- # of stems per shrub
- # of stems over 1" diameter per shrub
- Volume of plant (height x cover)

These measurements will be averaged for surviving shrubs over years 2, 3 and 4. Condition of the planted elderberries in years 5 and 7 will be compared to the baseline. Photographs should clearly document the baseline condition.

Monitoring Reports

Monitoring reports will be required during the establishment period for years 2-7, and should clearly document the progress of the plantings. All surveys must be thoroughly described, and copies of any field notes or data sheets from the current year included. Photographic documentation of elderberry and associate condition during the field surveys is required, and should clearly show the condition of all shrubs sampled. If sampling, describe sampling design. Each report should be comprehensive, and include data summaries and other pertinent information from previous monitoring years.

Requirements for long-term monitoring and reporting, including due dates, should be discussed in the bank's development and management plans.

References for Appendix C

- Elzinga, Caryl L., D. W. Salzer, and J. W. Willoughby. 1998. Measuring and Monitoring Plant Populations. BLM Technical Reference 1730-1.
- Gilbart, Meghan. 2009. The health of blue elderberry (*Sambucus mexicana*) and colonization by the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) in restored riparian habitat. Master's Thesis, California State University, Chico.
- Mueller-Dombois, Dieter and H. Ellenberg. 1974. Aims and methods of vegetation ecology. John Wiley and Sons, Inc.

EXHIBIT F

Permits & Ordinances - City of Sacramento

When is a TREE Permit Needed?

A permit is required to perform regulated work on “City Trees” or “Private Protected Trees” (which includes trees formerly referred to as “*Heritage Trees*”). City trees are characterized as trees partially or completely located in a City park, on City owned property, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip or alley. Private protected trees are defined as trees designated to have special historical value, special environmental value, or significant community benefit, and is located on private property. Private protected trees are:

- All native trees at 12 inch DSH*. Native trees include: Coast, Interior, Valley and Blue Oaks, CA Sycamore and Buckeye.
- All trees at 32 inch DSH with an existing single family or duplex dwelling.
- All trees at 24 inch DSH on undeveloped land or any other type of property such as commercial, industrial, and apartments.

* DSH = *Diameter Standard Height*. [Learn how to measure a tree's DSH](#).

Approved permits are required before work can be performed. If you plan to perform work on a City or private protected tree, download the [Tree Permit Application \(pdf\)](#). Once received by the Urban Forestry office, permit applications are generally processed within ten (10) business days. This time frame can vary based on the nature of the request and volume of requests received at any given time.

Selecting a Tree Care Professional

The City performs regulated work on City trees only. Tree maintenance for private trees should be provided by trained tree care professionals. When choosing a tree care professional, the following should be considered:

- Membership with a professional organization such as the International Society of Arboriculture (ISA), the Tree Care Industry Association (TCIA), or the Society of Consulting Arborists (ASCA)
- Certification through the ISA's Certified Arborist or Tree Worker programs
- Competitive pricing (three bids)
- Proof of Insurance
- List of references

Sacramento City Ordinances

- [SCC 12.56 – Trees Generally **](#)
- [Water Conserving Landscape Ordinance \(pdf\)](#)

**Sacramento City Code 12.56 was amended and adopted by Sacramento City Council on August 4, 2016. The new tree ordinance amends section 2.62.030 & 8.04.100, and

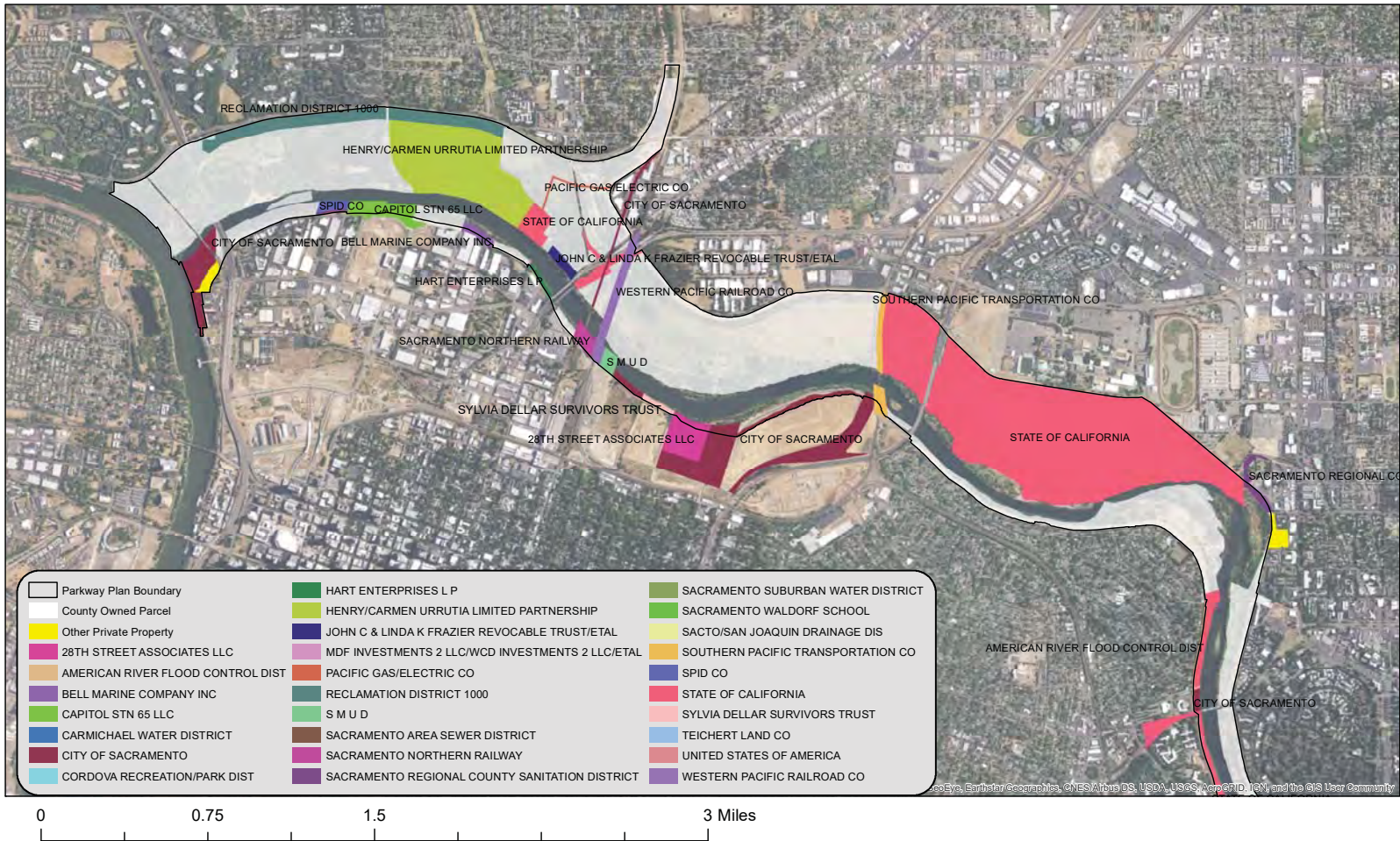
deletes chapter 12.60 & 12.64 of the Sacramento City Code, related to trees.

PARKING LOT SHADE DESIGN GUIDELINES

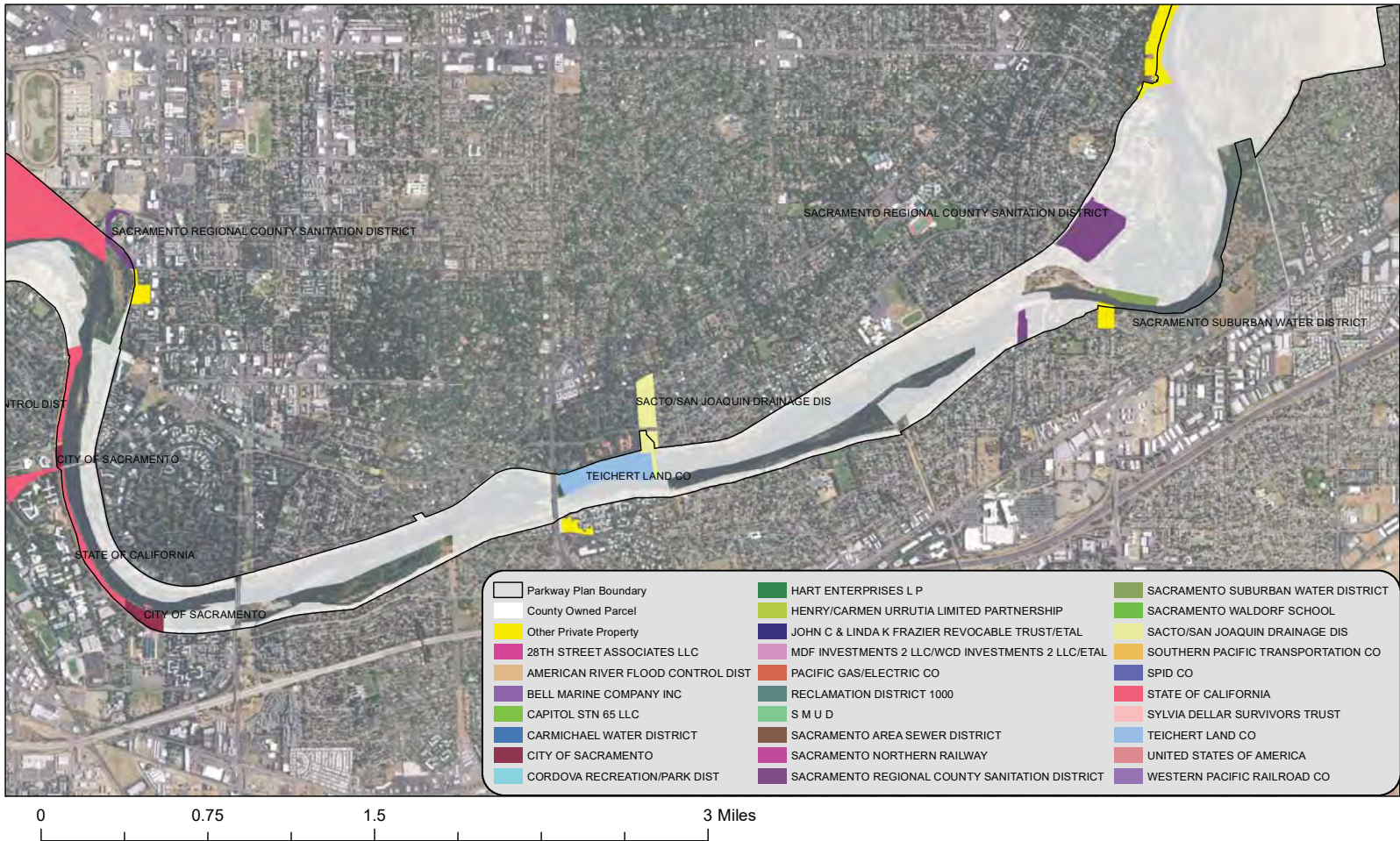
With a few exceptions, chapter 17.612.040 requires that trees be planted and maintained in order to provide a minimum of 50% shade over a parking lot. Planting, soil volumes and maintenance must comply with the [City's Parking Lot Shading Design and Maintenance Guidelines \(pdf\)](#).

EXHIBIT G

American River Parkway County Parcels and Inholdings (11/3/2017)



American River Parkway County Parcels and Inholdings (11/3/2017)



American River Parkway County Parcels and Inholdings (11/3/2017)

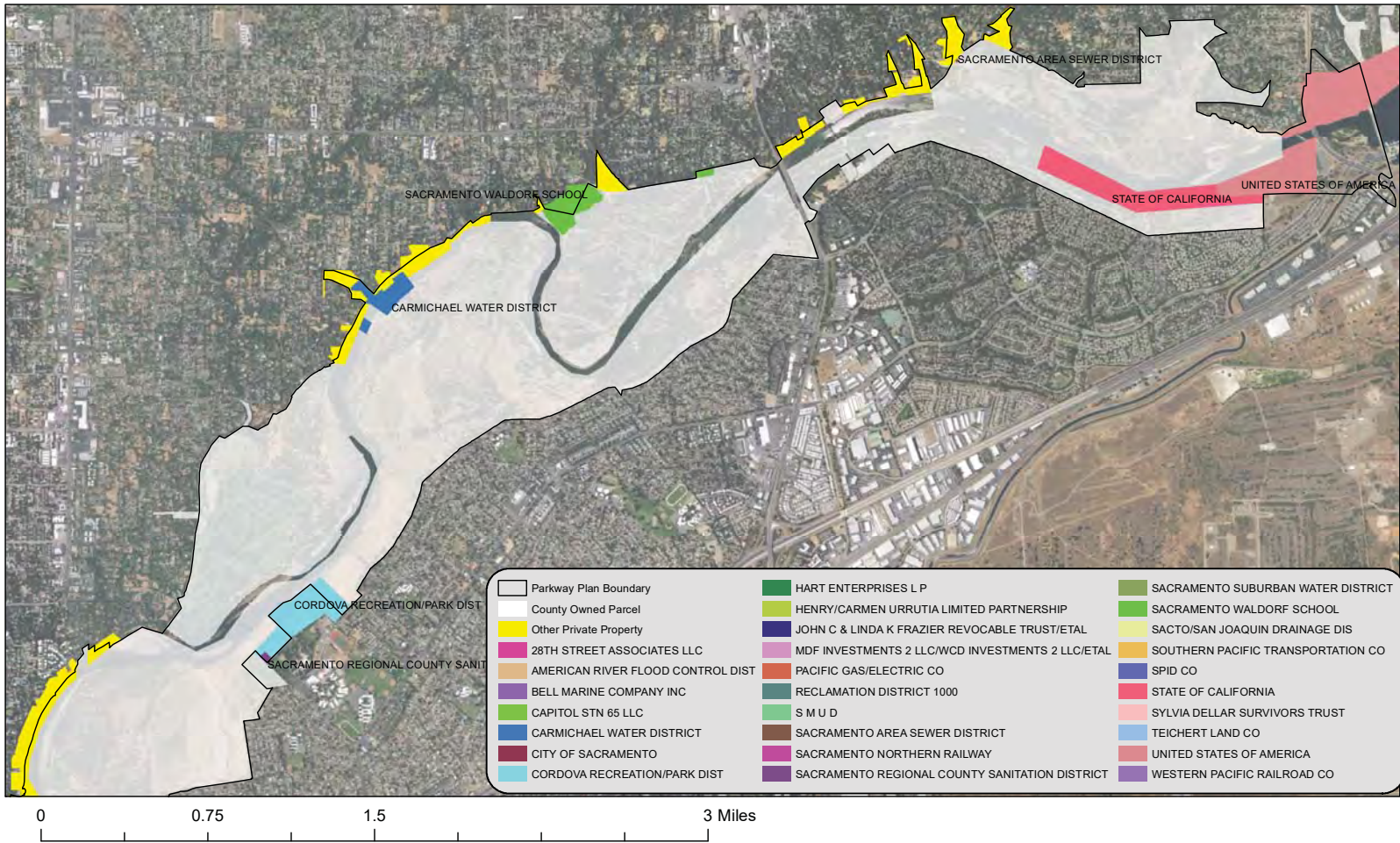


EXHIBIT H



REPORT TO COUNCIL

City of Sacramento

5

915 I Street, Sacramento, CA 95814-2604
www.CityofSacramento.org

CONSENT
January 9, 2007

Honorable Mayor and
Members of the City Council

Title: Change Order #1: Two Rivers Trail Phase I, CIP HB66

Location/Council District: American River Parkway's South Levee / Council District 1

Recommendation: Adopt a **Resolution:** 1) approving Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31; and 2) authorizing the City Manager to execute Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31.

Contact: J.P. Tindell, Interim Planning and Development Manager, 808-1955

Presenters: Not applicable

Department: Parks and Recreation

Division: Park Planning, Design & Development

Organization No: 4727

Description/Analysis

Issue: To complete construction for the Two Rivers Trail Phase I development, a change order must be approved as a result of an increase in the contract amount. However, Change Order #1, for \$365,415.31, exceeds 10% of the original contract price of \$653,329.00 (CO2006-236) and the City Manager's approval authority set forth in Sacramento City Code Section 3.60.210(B).

A summary of the project history is included as Attachment 1 (page 4) and a location map as Attachment 2 (page 5).

Policy Considerations: A change order must be approved as a result of an increase in contract price. However, Change Order #1 is in excess of the parameters set forth in Sacramento City Code Section 3.60.210 (B) and lies outside the City Manager's approval authority.

Providing parks and recreation facilities is also consistent with the City's strategic plan to enhance liveability in Sacramento's neighborhoods.

Committee/Commission Action: Not applicable. The Parks and Recreation Commission is periodically updated as to the status of construction projects.

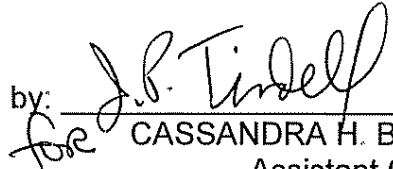
Environmental Considerations: The California Environmental Quality Act (CEQA) documentation, right-of-way engineering, and the survey work on Phase I is complete. On November 8, 2005, the Department Director approved the Negative Declaration for the development of Two Rivers Trail. The Environmental Services Manager determined that the action of approval of the paving construction for Phase I did not require further environmental evaluation, as it fell within the scope of the Negative Declaration. Mandatory mitigation measures, as specified in the Mitigation Monitoring Plan, were incorporated into the project plans to avoid identified impacts or to mitigate such impacts to a point where clearly no significant impacts could occur.

Rationale for Recommendation: Change Order #1 for the Two Rivers Trail Phase I project (Attachment 3, page 6) is necessary primarily to address the requirements from other agencies. The Geotechnical Engineer's report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or the American River Flood Control District's new specifications for levee fill material; the unsuitable soil needed to be disposed of off site and new material brought in to replace it. Staff recommends authorizing the City Manager to execute Change Order #1 in order to complete the Two Rivers Trail Phase I project.

Financial Considerations: Change Order #1 for Two Rivers Trail Phase I, CIP HB66, is in the amount of \$365,415.31. There are adequate funds in CIP HB66 to fund this change order.

Funding for this park was provided from a 2002 State of California grant (via Fund 248), General Funds (Fund 101), Railyards/Richards/ Downtown Impact Funds (Fund 782), and Transportation Development Funds (Fund 235).

Emerging Small Business Development (ESBD): The selection of Landscape Architect consultants and contractors for this project followed City established guidelines for inclusion of ESBD firms.

Respectfully Submitted by: 
for CASSANDRA H. B. JENNINGS
Assistant City Manager

Recommendation Approved:

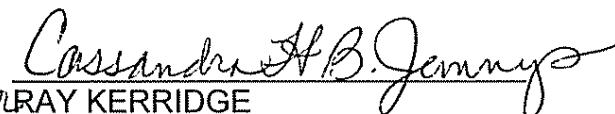

RAY KERRIDGE
City Manager

Table of Contents:

	Pg	1	Report
Attachments			
1	Pg	4	Background Information
2	Pg	5	Signage and On/Off Street Connections Two Rivers Trail Aerial Map
3	Pg	6	Change Order #1
4	Pg	7	Resolution

Attachment 1

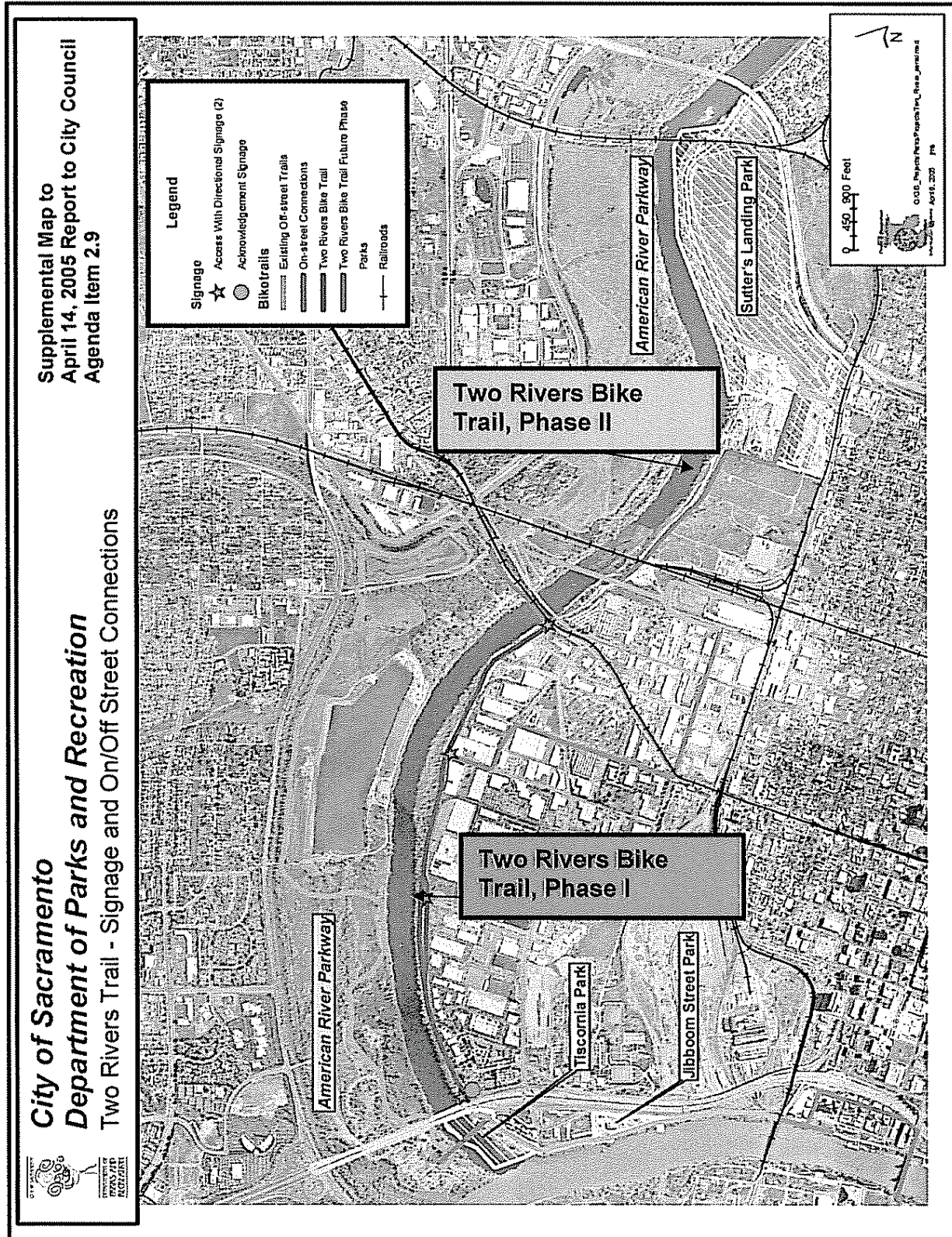
Background Information

The Two Rivers Trail project consists of two trail segments on the American River Parkway's South Levee that offer a connection from Tiscornia Park to Sutter's Landing Regional Park. This is planned as a Class I bike trail approximately 2.5 miles in length and located primarily on the crown of the American River's southern levee. Phase I of the trail is approximately 1.75 miles and runs from Tiscornia Park to Highway 160.

This trail is an important element of the redevelopment in the River District area and will also connect the Sacramento River Parkway to the American River Parkway, increasing alternative transportation access to downtown employment and economic centers.

The County of Sacramento owns parcels in-fee and recreation easements along much of the alignment of Phase I of the Two Rivers Trail; the County of Sacramento has agreed to let the City of Sacramento use its real estate interests through a use agreement and a lease agreement. The agreements with the County of Sacramento will allow the trail and parkway to continue development.

All property interests necessary for completion of the Two Rivers Trail were acquired.



Attachment 3

**TWO RIVERS BICYCLE / PEDESTRIAN TRAIL
HB66**

11/20/06

Description	Amount
Change Order #1	
PCO# 1.0 One Thousand Nine Hundred Sixty Point Two (1,960.2) CY of Export Material	61,746.30
Four Thousand Six Hundred and Ninety Point Four (4,690.4) CY of Import Fill	234,520.00
Installation of One Hundred Sixty-Seven Point Forty Seven (167.47) TN of Three Fourth (3/4) IN Asphalt Concrete	15,072.30
Installation of Six Hundred and Twenty Nine (629) TN of Three Fourth (3/4) IN Aggregated Base	49,062.00
Installation of Five Hundred Fifteen Point Sixty-Five (515.65) LF of Thermoplastic Stripe	448.62
Installation of Sixty-Seven (67) LF of Retaining Wall	15,276.00
Regrade for Fifteen (15) FT Clearance Under the I-5 Overpass on West and East Sides of Overpass	2,120.16
Removal of Vertical Shoulder on NW Corner of Entrance on Jibboom Street & I-5 and Regrade Shoulder and Replace with Cobble Stone	5,279.25
Installation of Cobble Stones on Shoulder of Trail and Access Road.	1,086.40
Demolition and Removal of Existing Asphalt and Concrete. Sub-Grade at the Point of Connection from Ramp to North 10 th Street.	1,288.78
PCO# 2.0 Deletion of Line Items on Base Bid as	
a. #7 – Ninety-Seven (97) SF of Three Point Five (3.5) IN Concrete Flatwork and Driveway to Place	(-3,637.50)
b. #10 – Seven (7) EA of Bollards to Place	(-2,149.00)
c. #11 – Two (2) LF of Chain Link Fence Six (6) FT High to Install	(-110.00)
d. #14 – Fourteen (14) EA of Install Signs Furnished by the City	(-3,500.00)
e. #16 – Nine (9) LF of Curb and Gutter	(-297.00)
f. #17 – Five Hundred and Twenty-Nine (529) SY of Chipseal to Place	(-4,761.00)
g. #20 – Forty Point Forty –Seven (40.47) TN Rubber Asphalt Concrete Top Course (Type A, One Half (1/2) IN Max. Med.)	(-6,030.00)
Total Change Order #1	\$365,415.31

RESOLUTION NO. 2007-

Adopted by the Sacramento City Council

January 9, 2007

APPROVING CHANGE ORDER #1: TWO RIVERS TRAIL PHASE I, CIP HB66

BACKGROUND

- A. The Two Rivers Trail is an important part of a regional trail system that offers both recreation and commuter opportunities. Two Rivers Trail runs primarily on the crown of the American River's southern levee from Tiscornia Park to the Sutter's Landing Regional Park; Phase I runs from Tiscornia Park to Highway 160.
- B. On July 18, 2006, a construction contract in the amount of \$653,329.00 was awarded to Biondi Paving for the construction of the Two Rivers Trail.
- C. To complete construction of Two Rivers Trail, a change order must be approved as a result of an increase in the contract amount by \$365,415.31. However, the change order is in excess of the parameters set forth in City Code Section 3.60.210 (B) and lies outside the City Manager's approval authority.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31 is approved.
- Section 2. The City Manager is authorized to execute Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31.

EXHIBIT I



Bank Protection Working Group

LAR Task Force Update

March 13, 2018





Presentation Outline

- **BPWG Status**
- **3 Tiered Approach to Site Designations**
 - Associated Parkway Resource Analysis
- **Paradise Bend to Howe Avenue Preliminary Results**
- **Next Steps**



BPWG Update

- **The Technical Advisory Committee continues to meet regularly, nearing segment recommendations for Paradise Bend to Howe Avenue Reach**
- **BPWG continues to meet bi-monthly (April 17 next)**
- **Technical analysis of Howe Avenue to Watt Avenue Reach is underway**
- **Upstream of Watt Avenue Reach and downstream of Paradise Bend Reach will follow**



Tiered Bank Protection Site Assessment: Risk and Resources

■ 3 Tiered Approach:

- Tier 1: Need to fix now – immediate threat of failure with 160,000 cfs flows
- Tier 2: Future fix needed – significant erosion loss is expected in the future
- Tier 3: Protection not warranted due to very wide berm or lack of erosion risk



Expansion of Tier 2 Assessment

- Tier 2a: significant erosion loss is expected in the future, berm/resources **should be protected**
- Tier 2b: erosion loss is expected in the future, **protection not warranted**





Key Questions for Consideration

- What types of resources are at risk from erosion?
- What types of resources could be **impacted by** bank protection projects?
- What types of resources could be **protected by** bank protection projects?





Parkway Resource Analysis

- **Infrastructure**

- Roads, bridges, electric transmission towers, sewer lines, etc...

- **Natural Resources**

- Riparian vegetation, instream woody material, natural bank, etc

- **Recreational**

- Bicycle trails, equestrian trails, access points, boat launches, golf courses, etc...

- **Considering Existing and Potential**



Parkway Resource Analysis Process

- **Compiling existing data**
- **Collecting new data**
- **Also planning fish monitoring**
 - Intended to observe and record actual fish use
 - May include:
 - Habitat assessments
 - Snorkel surveys
 - Video surveys



Paradise Bend to Howe Avenue Reach – Preliminary Results



Preliminary Results – Paradise Bend to Howe Avenue

- **TAC evaluation process is still underway**
- **Preliminary results indicate 6 potential Tier 1 segments**
- **TAC is expected to finalize their recommendation and discuss conceptual level designs at their meeting later this month**



Preliminary Tier 1 Segments – Paradise Bend to Howe Avenue



Next Steps

- **TAC to finalize Paradise Bend – Howe Avenue Reach recommendation to BPWG**
- **TAC to work on remaining reaches, beginning with Howe to Watt Avenues**
- **TAC/BPWG to incorporate Parkway resource analysis into Tiered Assessment**
- **Results of Tiered Assessments to come back to Task Force throughout 2018**



EXHIBIT J

Microbes and Urban Watersheds: Concentrations, Sources, & Pathways

Microbes are problematic. They are small and include hundreds of groups, species, biotypes and strains. They are ubiquitous in the environment, found on nearly every surface of the earth. They exist within us, on us, on plants, soils and in surface waters. They grow rapidly, die off, survive or multiply depending on a changing set of environmental conditions. Some microbes are beneficial to humans, while others exert no impact at all. Other microbes cause illness or disease, and a few can even kill you.

The presence of some types of microbes indicates a potential risk for water contamination, while other microbes are pathogens themselves (i.e., they are known to cause disease). Microbes are nearly always present in high concentrations in stormwater, but are notoriously variable. They are produced from a variety of watershed sources, such as sewer lines, septic systems, livestock, wildlife, waterfowl, pets, soils and plants, and even the urban stormdrain system itself.

It is little wonder that many watershed managers are thoroughly confused by the microbial world. This article seeks to provide enough background to help a watershed manager assess bacteria problems. It contains a national review and analysis of microbial concentrations, sources, and pathways in urban watersheds. The major focus is on fecal coliform bacteria, for which the most urban watershed data is available, but reference is also made to protozoa, such as *Cryptosporidium* and *Giardia*.

The article begins with a field guide to the bacteria found in urban waters. It compares the frequency of detection, origin, indicator status and measurement units of different microbes. The next section presents a national assessment of bacteria levels in urban stormwater. The last section profiles the many different human and nonhuman bacteria sources that can potentially occur in an urban watershed.

Field Guide to the Microbes

The complex microbial world is confusing to most; therefore, it is worth a moment to understand some of the terminology used to describe it. The term *microbes* refers to a wide range of living organisms that are too small to see with the naked eye. *Bacteria* are very simple single celled organisms that can rapidly reproduce by binary fission. Of particular interest are *coliform*

bacteria, typically found within the digestive systems of warm-blooded animals. The coliform family of bacteria includes total coliforms, fecal coliforms and the group *Escherichia coli* (*E. coli*). Each of these can indicate the presence of fecal wastes in surface waters, and thus the possibility that other harmful bacteria, viruses and protozoa may be present. Fecal streptococci (a.k.a., *Enterococci*) are another bacteria group found in feces which, under the right conditions, can be used to determine if a waste is of human or nonhuman origin. As such, all coliform bacteria are only an *indicator* of a potential public health risk, and not an actual cause of disease.

A *pathogen* is a microbial species that is actually known to cause disease under the right conditions. Examples of bacterial pathogens frequently found in stormwater runoff include *Shigella spp.* (dysentery), *Salmonella spp.* (gastrointestinal illness) and *Pseudomonas auerognosa* (swimmer's itch). Some subspecies can cause cholera, typhoid fever and "staph" infections. The actual risk of contracting a disease from a pathogen depends on a host of factors, such as the method of exposure or transmission, pathogen concentration, incubation period and the age and health status of the infected party.

Protozoa are single-celled organisms that are motile. Two protozoans that are common pathogens in surface waters are *Giardia* and *Cryptosporidium*. To infect new hosts, these protozoans create hard casings known as cysts (*Giardia*) or oocysts (*Cryptosporidium*) that are shed in feces, and travel through surface waters in search of a new host. The cysts or oocysts are very durable and can remain viable for many months. The protozoan emerges from its hard casing if and when a suitable host is found.

Table 1 provides a general comparison of the many microbes found in urban stormwater runoff, in terms of their frequency of detection, origin, indicator status, measurement units and information use.

Public health authorities have traditionally used fecal coliform bacteria to indicate potential microbial risk, and to set water quality standards for drinking water, shellfish consumption or water contact recreation. Some typical fecal coliform standards are provided in Table 2. Fecal coliforms are an imperfect indicator and regulators continually debate whether other bacterial species or groups are better indicators

Microbial Indicator	Found in Urban Runoff?	Fecal Origin?	Non-Human Sources?	Indicator or Pathogen	Units of Measurement ^a	Information Use ^b
Total coliforms	All samples	Most	Animals, plants, soil	Neither	Counts per 100 ml	Historical, seldom used
Fecal coliforms	All samples	Most	Animals, plants, soil	Indicator	Counts per 100 ml	Water contact, shellfish, drinking water
Fecal streptococci	All samples	Yes	Warm-blooded animals	Indicator	Counts per 100 ml	Sometimes used to ID waste source ^c
<i>Escherichia coli</i>	Nearly all samples	Yes	Mammals, some found in soils	Indicator, some are pathogen	Counts per 100 ml	Water contact, shellfish, drinking water
<i>Salmonella spp.</i>	About half	Yes	Mammals (esp. dogs)	Pathogen	Counts per 10 ml	Food safety
<i>Pseudomonas aeruginosa</i>	All samples	Yes	Mammals	Pathogen	Counts per 100 ml	Drinking water
<i>Cryptosporidium spp.</i>	Less than half	Yes	Mammals (esp. livestock)	Pathogen	Oocysts per liter	Drinking water
<i>Giardia spp.</i>	Less than half	Yes	Mammals (esp. dogs and wildlife)	Pathogen	Cysts per liter	Drinking water

^a Research use many different terms and sampling methods to describe their bacterial counts, including MPN (most probable number), colony forming units (CFU), colonies, or organisms.

^b See Table 2 for a more thorough discussion on bacteria and protozoan standards.

^c It is important to note that fecal strep is a poor method for urban stormwater

of potential health problems and how low indicator levels must be to ensure “safe” water. The debate, however, remains largely academic, as over 90% of the states still rely of fecal coliform in whole or in part as their recreational water quality standards (USEPA, 1998).

Fecal Coliform Levels in Urban Stormwater Runoff

Coliforms are ubiquitous—about 20% of all water quality samples at U.S. Geological Survey’s main sampling stations across the country exceeded the 200 MPN/100 ml fecal coliform standard in the 1980s (Smith *et al.*, 1992) *Note: Most samples were conducted in dry weather conditions and in larger watersheds.* The highest fecal coliform levels were routinely collected in agricultural and urban watersheds. For-

ested and pastured watersheds had much lower fecal coliform levels (about 50 to 100 MPN per 100 ml).

The vast majority of urban stormwater monitoring efforts utilize fecal coliform as the primary microbial indicator. A small handful of researchers have measured other coliforms or other specific pathogens (e.g., *Salmonella*, *Pseudomonas*, etc.). Some caution should be exercised when evaluating storm concentrations of fecal coliforms, as most represent a “grab” sample rather than a true flow-composite sample. This, along with differences in how samples are counted and averaged, produces the notorious variability that is associated with stormwater fecal coliform data.

Pitt (1998) reports a mean fecal coliform concentration in stormwater runoff of about 20,000 colonies per 100 ml based on 1,600 storm runoff samples

Table 2: Typical Coliform Standards for Different Water Uses

Water use	Microbial Indicator	Typical Water standards
Water contact recreation	Fecal coliform	<200 MPN per 100 ml
Shellfish bed	Fecal coliform	<14 MPN per 100 ml
Drinking water supply	Fecal coliform	<20 MPN per 100 ml
Treated drinking water	Total coliform	No more than 1% coliform positive samples per month
Freshwater swimming	<i>E. coli</i>	<126 MPN per 100 ml
Marine swimming	<i>E. coli</i>	<35 MPN per 100 ml

Important Note: Individual state standards may employ different sampling methods, indicators, averaging periods, averaging methods, instantaneous maximums and seasonal limits. MPN=most probable number. Higher or lower limits may be prescribed for different water use classes. Please consult your state water quality agency or USEPA (1998) to determine bacteria standards used in your community.

largely collected during the Nationwide Urban Runoff Program (NURP) in the early 1980s. He also reports a nearly identical mean fecal coliform concentration of about 22,000 colonies per 100 ml that was derived from a second database containing 25 additional stormwater monitoring studies conducted since NURP.

The Center for Watershed Protection has recently developed a third database containing 34 more recent urban stormwater monitoring studies. An analysis of the Center database indicates a slightly lower mean concentration of fecal coliform in urban stormwater of about 15,000 per 100 ml. The Center fecal coliform database is profiled in Figure 1. Nearly every individual stormwater runoff sample in the database exceeded bacteria standards, usually by a factor of 75 to 100. Some indication of the enormous storm to storm variability in fecal coliform bacteria can be seen in Figure 1, with concentrations often spanning five orders of magnitude at the same sampling location. Other data for fecal streptococci and *E. coli* are provided in Figures 2 and 3.

Arid and semi-arid regions of the country often experience higher fecal coliform levels. For example, Chang (1999) computed a flow-weighted mean fecal coliform concentration of 77,970 MPN/100 ml in 21 small urban watersheds in Austin, Texas.

It should be noted that the most extreme bacteria concentrations in stormwater runoff from larger catchments (10^5 - 10^6) are usually associated with an inappropriate human discharge (e.g., failing septic system, sanitary sewer overflows or illicit connections) (Pitt, 1998).

Fecal coliform levels are generally much lower in stream baseflow than during storms, unless an inappropriate sewage discharge is present upstream (Gannon and Busse, 1989; USEPA, 1983). This is most evident at runoff monitoring stations at recently developed suburban watersheds that have few suspected sewage discharges. For example, Varner (1995) sampled fecal coliform samples at 11 stations in suburban catchments in the City of Bellevue, WA. Overall, the mean stormflow concentration of fecal coliforms (4,500 MPN/100 ml) was about nine times greater than mean baseflow concentrations (600 MPN/100 ml) for all stations.

Watershed managers should systematically assess dry weather flows from stormwater outfall pipes, however, before they conclude that dry weather bacteria concentrations are not a concern. In some communities, as many of 10% of all pipe outfalls have dry weather flow. Even if only a few of these flows contain sewage, they can produce very high bacteria concentrations during baseflow conditions.

Fecal coliform levels are about 90% lower in runoff that occurs in winter than during the summer months, although bacteria levels can increase sharply during snowmelt events (USEPA, 1983 and Figure 4). Researchers have occasionally correlated bacteria levels with factors such as rainfall, rainfall intensity, antecedent rainfall, turbidity and suspended solids within individual urban watersheds. Few of these relationships, however, appear to be transferable from one watershed to another. Other watershed variables that may better predict bacteria levels include population density (Glenn, 1984), age of development and percent residential development (Chang, 1999).

Unlike many pollutants, fecal coliforms do not appear to be directly related to subwatershed impervious cover. For example, Hydroqual (1996) evaluated fecal coliform concentrations for seven small subwatersheds of different impervious cover in the Kensico watershed, a small drinking water reservoir for New York City. Undeveloped subwatersheds with 4% impervious cover had fecal coliform concentrations well below the 200 MPN standard, whereas watersheds ranging from 20 to 65% imperviousness exceeded the standard handily (Figure 5). While developed watersheds nearly always had greater fecal coliform concentrations than undeveloped watersheds, more impervious cover in a developed watershed was not observed to increase fecal coliform concentrations.

Protozoan Levels in Urban Runoff

Until recently, the major sources of protozoa in surface waters were generally thought to be human sewage, dairy runoff and wildlife sources. The only study to date that has measured *Cryptosporidium* or *Giardia* in stormwater runoff found high levels of both protozoans (Stern *et al.*, 1996). David Stern and his colleagues monitored a series of agricultural and urban watersheds within the New York City water supply reservoir system, and found urban subwatersheds had slightly higher rates of *Giardia* and *Cryptosporidium* detection than agricultural subwatersheds, and a higher rate of confirmed viability (Table 3 and Stern *et al.*, 1996).

States *et al.* (1997) also found very high levels of *Cryptosporidium* and *Giardia* in storm samples collected from combined sewers in the Pittsburgh region (geometric means of 28,881 cysts/100 ml for *Giardia* and 2,013 oocysts/100 ml for *Cryptosporidium*) The protozoa were detected in virtually every sample collected from the combined sewer overflows. Sampling of protozoa is complicated by durability of their cysts and oocysts in the environment (i.e., some *Cryptosporidium* and *Giardia* cysts and oocysts persist, but are no longer viable of infecting another host). Much more sampling is needed in other regions to determine if stormwater and combined sewer runoff are major sources of *Cryptosporidium* and *Giardia*.

Bacteria Sources in Urban Watersheds

The high concentrations of bacteria in stormwater are derived from many possible human and non-human sources. Consequently, watershed managers must investigate many different sources and source areas in order to develop an effective strategy for bacteria control. Some of the more likely bacteria sources are described in Table 4.

Human Sources of Bacteria

The major source of bacteria in most urban waters was human sewage until the advent of modern waste-

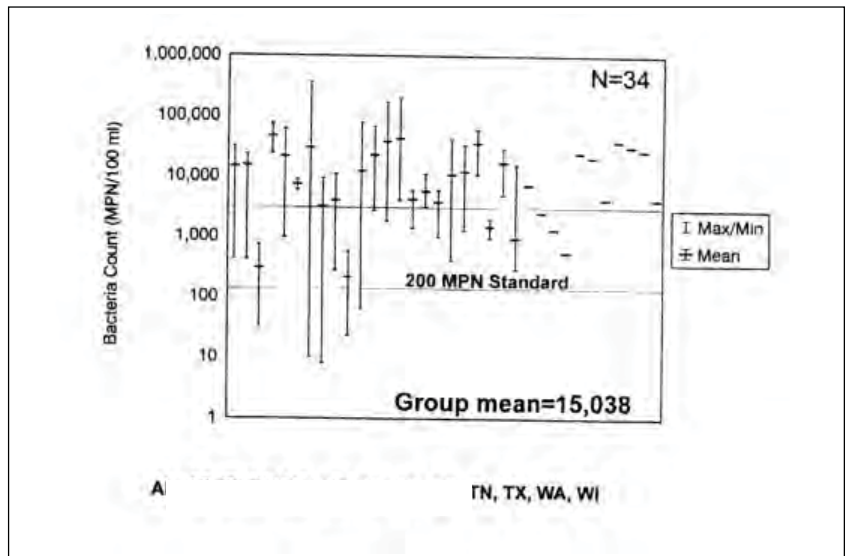


Figure 1: Fecal Coliforms in Urban Stormwater Runoff

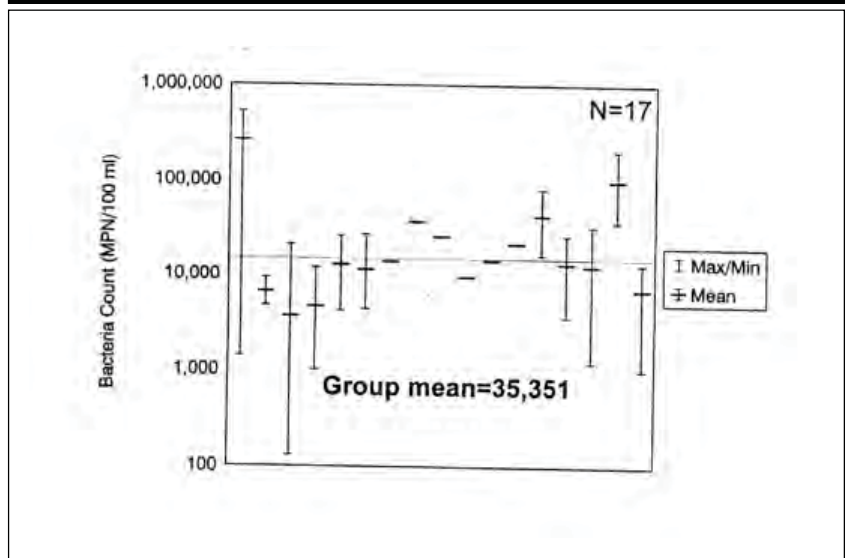


Figure 2: Fecal Streptococci in Urban Stormwater Runoff

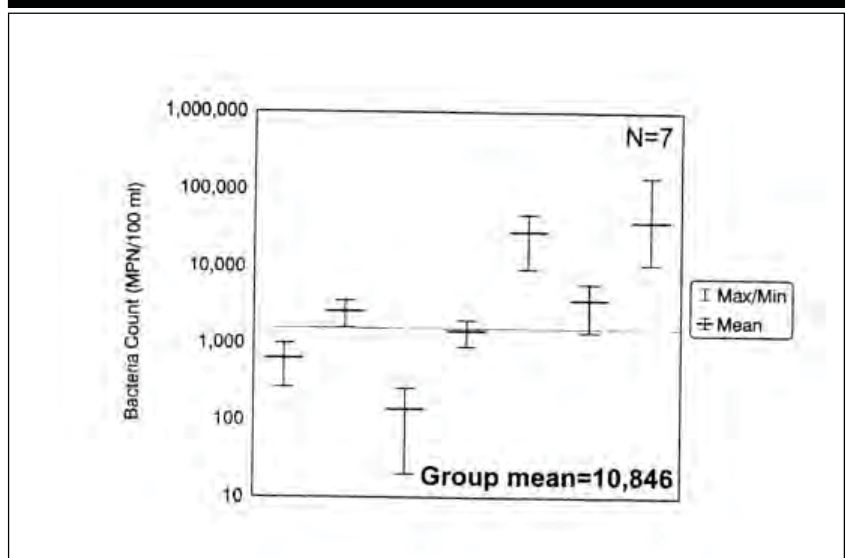


Figure 3: *E. coli* in Urban Stormwater Runoff

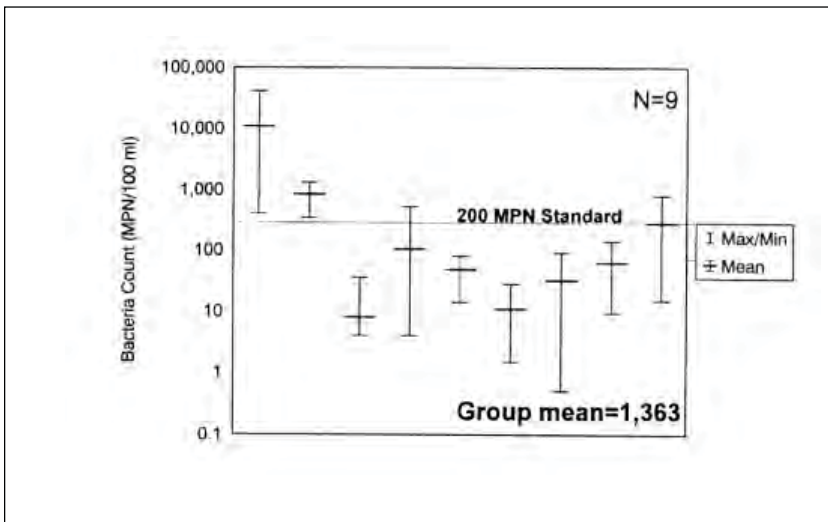


Figure 4: Fecal Coliforms in Winter Runoff

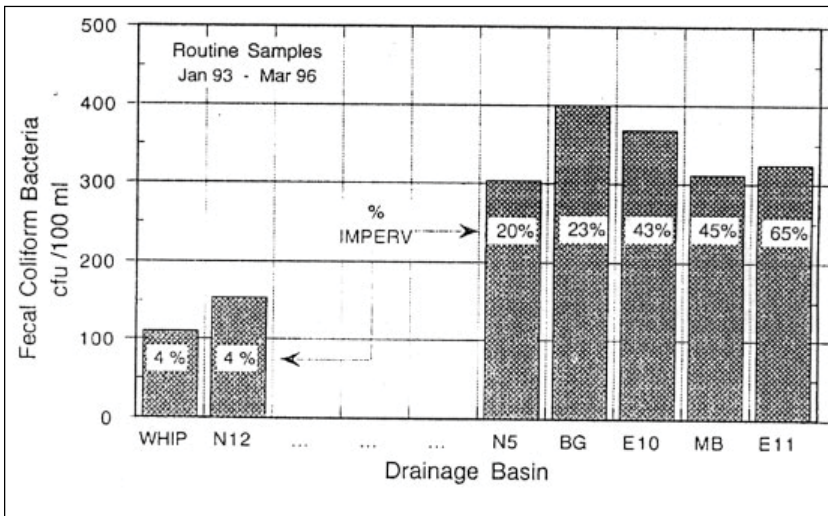


Figure 5: Fecal Coliform Levels in Watersheds of Different Impervious Cover (Hydroqual, 1996)

water treatment. Wastewater is now generally collected in a central sewer pipe and sent to a municipal plant for treatment in most urban watersheds. Ideally, wastewater treatment provides more efficient collection, conveyance, and treatment of wastewater than septic systems or package plants. In reality, many sewer systems are still an episodic or chronic source of bacteria. Potential pathways of human sewage to surface waters include combined sewer overflows, sanitary sewer overflows, illegal sanitary connections to storm drains, transient dumping of wastewater into storm drains and failing septic systems.

The potential significance of sewage as a bacteria source can be quickly grasped from Table 5, which compares typical coliform levels from several waste streams, including raw sewage, combined sewer overflows, failed septic systems, stormwater and forest runoff. Raw sewage typically is about two to three orders of magnitude “stronger” than stormwater runoff in terms of coliform production, and is four to five orders of magnitude “stronger” than forest runoff that is influenced only by wildlife sources. As a general rule, human sources of sewage should be suspected when fecal coliform concentrations are consistently above 10^5 (Pitt, 1998).

- *Combined sewer overflows (CSOs)*

Many older cities have a sewer system that carries both wastewater and stormwater. During some storms, the capacity of the treatment system is exceeded, and diluted wastewater is discharged directly into the surface waters without treatment. As seen in Table 5, CSOs have extremely high bacteria levels and deserve immediate attention as a bacteria source when they are found in any watershed.

- *Sanitary sewer overflows (SSOs)*

Human sewage can be introduced into surface waters even when storm and sanitary sewers are separated. Leaks and overflows are common in

Table 3: Percent Detection of *Giardia* Cysts and *Cryptosporidium* oocysts in Subwatersheds and Wastewater Treatment Plant Effluent in the New York City Water Supply Watersheds (Stern et al., 1996)

Source water sampled (No. of sources/No. of samples)	Percent Detection			
	Total <i>Giardia</i>	Confirmed <i>Giardia</i>	Total <i>Cryptosporidium</i>	Confirmed <i>Cryptosporidium</i>
Wastewater effluent (8/147)	41.5	12.9	15.7	5.4
Urban subwatershed (5/78)	41.0	6.4	37.2	3.9
Agricultural subwatershed (5/56)	30.4	3.6	32.1	3.6
Undisturbed subwatershed (5/73)	26.0	0.0	9.6	1.4

many older sanitary sewers where capacity is exceeded, high rates of infiltration and inflow occur (i.e., outside waters gets into pipes, reducing capacity), frequent blockages occur, or are simply falling apart due to poor joints or pipe materials. Power failures at pumping stations are also a common cause of SSOs. The greatest risk of a SSO occurs during storm events; however, little comprehensive data is available to quantify SSO frequency and bacteria loads in most watersheds. The Association of Metropolitan Sewage Agencies (AMSA, 1994) estimates that about 140 overflows occur per one thousand miles of sanitary sewer lines each year (1,000 miles of sewer serves a population of about 250,000). The AMSA survey also found that 15 to 35% of all sewer lines were over capacity and could potentially overflow during storms.

- *Illicit connections to storm sewers*

Sewage can be introduced into storm sewers by accident or design. The hundreds of miles of storm and sanitary sewer pipes in a community creates a confusing underground spaghetti of utilities, so it should not be surprising that improper connections are made to the wrong sewer. For example, Johnson (1998) reported that just under 10% of all businesses in Wayne County, MI had illicit connections, with an average of 2.6 illicit connections found at each detected business. While most illicit connections did not contain raw sewage (e.g., floor drains, sinks), 11% of the Wayne County illicit connections included toilet discharges. Schmidt and Spencer (1986) found a 38% rate of illicit connections in Washtenaw County, MI, primarily among automobile-related and manufacturing businesses. It is not clear how many of these illicit connections involved sewage, as compared to wash water. Pitt and McClean (1986) detected illicit connections in about 12% of storm sewers in Toronto, and Pitt

(1998) found that 18% of storm outfalls surveyed that had dry weather flow were contaminated by human sewage in a small Alabama subwatershed.

- *Illegal dumping into storm drain system*

There is quite a bit of anecdotal evidence of illegal transient dumping of raw sewage into storm drain

Table 4: Potential Sources of Coliform Bacteria in an Urban Watershed

Human Sources

Sewered watershed

- Combined sewer overflows
- Sanitary sewer overflows
- Illegal sanitary connections to storm drains
- Illegal disposal to storm drains

Non-sewered watershed

- Failing septic systems
- Poorly operated package plant
- Landfills
- Marinas and pumpout facilities

Non-human Sources

Domestic animals and urban wildlife

- Dogs, cats
- Rats, raccoons
- Pigeons, gulls, ducks, geese

Livestock and rural wildlife

- Cattle, horse, poultry
- Beaver, muskrats, deer, waterfowl
- Hobby farms

Table 5: Comparison of Bacterial Densities in Different Waste Streams (MPN/100 ml) (Pitt, 1998; Lim and Oliveri, 1982; Smith *et al.*, 1992, Horsely & Witten, Inc., 1995)

Waste stream	Total coliform	Fecal coliform	Fecal streptococci
Raw sewage	2.3×10^7	6.4×10^6	1.2×10^6
Combined sewer overflow	$10^4 - 10^7$	$10^4 - 10^6$	10^5
Failed septic systems	$10^4 - 10^7$	$10^4 - 10^6$	10^5
Urban stormwater runoff	$10^4 - 10^5$	2.0×10^4	$10^4 - 10^5$
Forest runoff	$10^2 - 10^3$	$10^1 - 10^2$	$10^2 - 10^3$

from septage vac trucks (i.e, honey wagons), recreational vehicles and portable toilets (Johnson, 1998). In addition, there may be inadvertent dumping from moving vehicles, such as live-stock carriers and recreational vehicles. The overall significance of illegal or inadvertent dumping as a watershed bacteria source, however, is hard to quantify.

- *Failing septic systems*

About one-fourth of all American households rely on on-site septic systems to dispose of their wastewater, which translates to about 20 million individual systems (Wilhelm *et al.*, 1994). After solids are trapped in a septic tank, wastewater is distributed through a subsurface drain field and allowed to percolate through the soil. Bacteria are effectively removed by filtering and straining water through the soil profile, if the septic system is properly located, installed and maintained. A large number of septic systems fail, however, when wastewater breaks out or passes through the soil profile without adequate treatment. The regional rate of septic system failure is reported to range from five to nearly 40%, with an average of about 10% (Table 6).

The causes of septic system failure are numerous: inadequate soils, poor design, siting, testing or inspection, hydraulic overloading, tree growth in the drain field, old age, and failure to clean out. When investigating whether septic systems are likely to be a major bacteria source in a watershed, managers should consider the following risk factors: septic systems that are older than 20 years, situated on smaller lots, service second homes or provide seasonal treatment, are adjacent to shorelines or ditches, are located on thin or excessively permeable soils, or are close to bedrock or the water table. The design life of

most septic systems is 15 to 30 years, at which point major rehabilitation or replacement is needed.

Tuthill *et al.* (1998) detected coliforms in 30 to 60% of shallow wells in Frederick County, MD, with the highest concentration found on lots of a half acre or less served by septic systems. Glasoe and Tompkins (1996) reported a much higher failure rate for septic systems situated near waterfront as compared to more upland areas. Duda and Cromartie (1982) reported a very strong relationship between the density of septic systems and shellfish bed closure in the flat coastal plain of North Carolina.

Non-Human Bacteria Sources

Unless an inappropriate human sewage discharge is present in an urban watershed, most of the bacteria present in storm runoff are generally assumed to be of nonhuman origin. Recent genetic studies by Alderiso *et al.* (1996) and Trial *et al.* (1993) independently concluded that 95% of fecal coliform found in urban stormwater were of nonhuman origin. Recent microbial tracking by Samadpour and Checkowitz (1998) also confirms that nonhuman sources (dogs and livestock from hobby farms) were the primary source of bacterial contamination in a lightly developed Washington watershed, although septage effluent was a secondary source.

Documented nonhuman sources of fecal coliform bacteria in urban watersheds are dogs, cats, raccoons, rats, beaver, gulls, geese, pigeons and even insects. Dogs in particular appear to be a major source of coliform bacteria and other microbes, which is not surprising given their population density, daily defecation rate, and pathogen infection rates. According to van der Wel (1995), a single gram of dog feces contains 23 million fecal coliform bacteria. Dogs have also

Table 6: Failure Rate for Septic Systems

Geographic location	Source	Failure rate (%)
Frederick County, MD	Tuthill, 1998	30+
Detroit, MI	Johnson, 1998	20
Wayne County, MI	Johnson, 1998	21
Oakland County, MI	Johnson, 1998	39
Florida	Hunter, 1998	5
Mason County, WA	Glasoe and Tompkins, 1996	12
Puget Sound, WA	Smayda et al., 1996	10 to 25

been found to be significant hosts for *Giardia* and *Salmonella* (Pitt, 1998). The *Salmonella* infection rate for dogs and cats ranges from two to 20% according to Lim and Oliveri (1982), who also noted that dog feces were the single greatest source contributing fecal coliform and fecal strep bacteria in highly urban Baltimore catchments. Trial *et al.* (1993) reported that cats and dogs were the primary source of fecal coliforms in urban subwatersheds in the Puget Sound region. In addition, Davies and Hubler (1979) found 13% of cats and 25% of dogs were infected with *Giardia*. Pitt (1998) notes that prior studies have indicated that dogs are a significant host of *Pseudomonas aureginosa*.

Urban wildlife can also be a significant bacterial source. In highly urban areas, rats and pigeons can be a major source of bacteria (Lim and Oliveri, 1982). In more suburban watersheds, raccoons have adapted to an underground habitat within storm drain pipes, and use ledges in storm drain inlets on a temporary basis. Blankenship (1996) reported that exceedance of *E. coli* standards in a Virginia coastal area was due to the local raccoon population.

Beaver are gradually recolonizing many urban stream habitats where they had previously been extirpated (Kwon, 1997). Numerous studies have fingered beavers as a key source of *Giardia*. For example, Monzingo and Hibler (1987) detected giardia in an average of 44% of beavers sampled in a Montana lodge, and also documented *Giardia* cysts in beaver ponds, pond sediments and downstream waters. Other researchers have found lower infection rates. For example, Frost *et al.* (1980) found *Giardia* in 10% of the beaver population and 40% of the muskrat population, while Davies and Hubler (1979) reported an 18% *Giardia* infection rate among beavers in Ohio.

Geese, gulls and ducks are speculated to be a major bacterial source in urban areas, particularly at lakes and stormwater ponds where large resident populations become established. Levesque *et al.* (1993) detected an increase in *E. coli* concentrations from flock of gulls roosting near a reservoir, which is not to surprising given that they have very high bacteria excretion rates (Table 7). Relatively little data is available to quantify whether geese and ducks are a major source of fecal coliforms or pathogens. Moorhead *et al.* (1998) did find high *E. coli* concentrations in a series of stormwater impoundments in West Texas that were heavily utilized by waterfowl, and other stormwater researchers often attribute high coliform levels to upstream geese or duck populations (Pitt *et al.*, 1988). Bacteria production from waterfowl are expected to be greatest in small impoundments and concrete water storage reservoirs.

Livestock can still be a major source of fecal coliform in unsewered urban watersheds, particularly those areas of the urban fringe that have horse pastures, "hobby" farms and ranchettes (Samadapour and

Checkowitz, 1998). Although these operations are very small, the stocking density is often very high, and good grazing and riparian management practices are seldom applied.

Bacterial Survival and Growth in the Urban Drainage System

It is commonly assumed that most fecal coliform bacteria rapidly die off in the outside world in a few days. Research, however, has shown that many bacteria merely disappear from the water column and settle to bottom sediments, where they can persist for weeks or months in the warm, dark, moist and organic-rich conditions found there (Burton *et al.*, 1987). Fecal coliform levels in stream and lake sediments are routinely three to four orders of magnitude higher than those in the overlying water column (Van Donsel and Geldrich, 1971).

The same behavior has recently been noted in the bottom sediments of stormwater ponds and urban lakes (Pitt, 1998). Other researchers have documented that fecal coliform bacteria can survive and even multiply in the sediments in urban streams, ditches and drains (Burton *et al.*, 1987; Marino and Gannon, 1991). Some evidence of fecal coliform survival has been observed in catch basins (Butler *et al.*, 1995; Ellis and Yu, 1995) and also within roadway curb sediments (Sartor and Boyd, 1977; Bannerman *et al.*, 1996). Coliform bacteria also have been found to survive and grow in moist soils and leaf piles (Oliveri *et al.*, 1977). This may explain why grass swales and ditches frequently have high bacteria levels.

The strong evidence that fecal coliform bacteria can survive and even multiply in sediments indicates that the drainage network itself can become a major bacterial sink and/or source during storm events if sediments are flushed or resuspended.

Bacterial Source Area Research

Several researchers have sampled small source-areas within the urban landscape to determine where the major nonhuman sources of fecal coliforms are found. The two most recent studies have been conducted in Madison, Wisconsin (Bannerman *et al.*, 1993) and Marquette, Michigan (Steuer *et al.*, 1997). While the bacteria levels were widely different in the two studies, both indicated that residential lawns, driveways and streets were the major source areas for bacteria (Table 8). As might be expected, rooftops and parking lots were usually smaller source areas.

The source area data lend some credence to the "Fido" hypothesis—areas of the urban landscape that are used by dogs and other pets tend to generate higher bacteria levels. In addition, both studies reported end-of-pipe bacteria concentrations that were at least an order of magnitude higher than any source area in the

**Table 7: Bacterial Densities in Warm-Blooded Animals Feces
(Pitt, 1998; Godfrey, 1992; Geldrich *et al.*, 1962)**

Waste stream	Fecal coliform (Density/gm)	Fecal streptococci	Unit discharge (lbs/day)
Human	1.3×10^7	3.0×10^6	0.35
Cats	7.9×10^6	2.7×10^7	0.15
Dogs	2.3×10^7	9.8×10^8	0.32
Rats	1.6×10^5	4.6×10^7	0.08
Cows	2.3×10^5	1.3×10^7	15.4
Ducks	3.3×10^7	5.4×10^7	0.15
Waterfowl	3.3×10^7	-	0.18 - 0.35

contributing watershed, which suggests that the storm drain system was the greatest bacterial source in the watershed, possibly as a result of the resuspension of storm drain sediments or an undetected illicit connection. The tendency for end-of-pipe bacteria levels to exceed contributing source area levels was also documented in stormwater source area monitoring in Toronto conducted by Pitt and McClean (1986).

Priorities for Watershed Research.

Our ability to manage bacteria problems on a watershed basis are handicapped by some major data gaps, particularly with respect to pathogen levels, bacterial source areas and the linkage between indicators and human pathogens. The following priority research areas would help to fill these gaps and be of practical value to watershed managers:

- More epidemiological research on the public health risk associated with limited exposure to urban stormwater (wading, canoeing, tubing, etc.).
- Expanded monitoring for *Giardia* and *Cryptosporidium* in stormwater runoff from sewered and unsewered catchments.
- Development of better, faster and more robust bacteria indicator tests that can reduce analysis time from the current 48 hours to two hours or less. Not only would such tests provide early warning of public health risks, but they would allow researchers to collect automated storm samples which is currently not recommended due to holding times.
- Sampling of *Cryptosporidium*, *Giardia* and *Salmonella* infection rates for different populations of dogs, cats, and other urban wildlife.
- More systematic monitoring of the frequency and volume of sanitary and storm sewer discharges to determine bacteria contributions during sanitary sewer overflows and dry weather flows.

- Development of better, faster and more accurate field methods to determine how frequently septic systems fail, and the potential bacterial load they contribute to a watershed. In addition, a standard protocol for defining septic system “failure” needs to be adopted.
- Systematic sampling of bacteria sources and reservoirs within a network of storm drains and stormwater practices should be done.
- Development of watershed models or statistical tools that can better project and quantify bacteria sources and dynamics.

Summary

This review of bacteria levels and sources leads to four troubling conclusions. The first is that it is exceptionally difficult to maintain beneficial uses of water in the face of even low levels of watershed development, given the almost automatic violation of bacterial water quality standards during wet and dry weather. Thus, if a watershed manager has a beach, shellfish bed or drinking water intake to protect, they can expect that even a modest amount of watershed development is likely to restrict or eliminate that use.

The second troubling conclusion is that bacteria levels in urban stormwater are so high that watershed practices will need to be exceptionally efficient to meet current fecal coliform standards during wet weather conditions. Given stormwater fecal coliform levels equivalent to the national mean of 15,000 per 100 ml, watershed practices may need to achieve nearly a 99% removal rate to meet standards. The inability of current stormwater practices, stream buffers and source controls to attain this daunting performance level is reviewed in article 67.

The third troubling conclusion is that watershed managers will need to perform a lot of detective work to narrow down the lengthy list of potential bacteria suspects. Considerable monitoring resources will need

Table 8: Concentrations (Geometric Mean Colonies per 100 ml) of Fecal Coliforms from Urban Source Areas (Steuer *et al.*, 1997; Bannerman *et al.*, 1993)

Geographic location	Marquette, MI	Madison, WI
No. of storms sampled	12	9
Commercial parking lot	4,200	1,758
High traffic street	1,900	9,627
Medium traffic street	2,400	56,554
Low traffic street	280	92,061
Commercial rooftop	30	1,117
Residential rooftop	2,200	294
Residential driveway	1,900	34,294
Residential lawns	4,700	42,093
Basin outlet	10,200	175,106

to be applied to isolate the unique mix of bacteria sources that cause water quality problems in each specific watershed, and more importantly, identify sources that are most controllable.

Lastly, it is very troubling that we understand so little about the actual relationship between bacterial indicators and the risk to public health in urban watersheds. Fecal coliform remains an imperfect indicator, yet no better alternative has yet to emerge to replace it. A great deal more research is needed to fully indicate the real public health risk of urban stormwater. **See also articles 31, 67 and 125. —TRS**

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EXHIBIT K

Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count

A report prepared by
California State University, Sacramento
For
Sacramento Steps Forward



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Executive Summary

Every two years, the U.S. Department of Housing and Urban Development (HUD) requires local communities to conduct a census of all individuals experiencing homelessness in their region—called the Point-in-Time (PIT) Count—during one night at the end of January. This extensive countywide effort to estimate the local homeless population provides a snapshot of nearly all individuals and families staying at emergency/transitional shelters in the county, as well as those sleeping outside, in tents or vehicles and under bridges. In addition to fulfilling a HUD funding requirement, the PIT Count is a detailed and timely information source for local stakeholders and the broader community to assess the state of homelessness in their region.

Sacramento Steps Forward (SSF) is the lead agency of the Sacramento Continuum of Care, and has held the responsibility of conducting the PIT Count for the past several years. In December 2016, SSF commissioned researchers at *California State University, Sacramento* (CSUS) to supervise and enhance the methodology of the 2017 PIT, as well as provide a thorough analysis of the data collected. This report summarizes some of the key findings and recommendation from the 2017 PIT Count.

Analyses of the various data collected on January 25th, 2017, point to some general conclusions about the state of homelessness in Sacramento County:

1. The county has experienced an increase in the number of individuals and families who confront homelessness on a nightly basis.
 - Since 2015, we estimate a real growth in nightly homeless of approximately 30% (from 2,822 to 3,665).
 - The majority of homeless (56%) in the county are sleeping outdoors (unsheltered), a dramatic change in proportion from previous PIT counts
 - Indeed, there has been more pronounced growth among homeless who are unsheltered and sleeping outdoors (from 1,111 to 2,052; or 85% increase).
2. Because of the disproportionate increase in unsheltered homeless—individuals who tend to have higher and more immediate needs than those in a shelter or transitional housing—the 2017 PIT also saw sharp rise of particular at-risk groups.
 - Approximately 31% of the homeless in Sacramento County are chronically homeless—have experienced prolonged bouts of housing instability and are disabled—which is a substantial increase from the 18% rate reported in 2015.

- We also found a 50% increase in the number of homeless veterans since 2015 (313 to 469).
 - Notably, these estimates suggest that the majority of homeless veterans are unsheltered (69%).
3. Some populations saw little to no change, or even a decrease, since 2015. However, it is unclear whether these decreases may reflect, in part, undercounting of difficult to engage subpopulations.
- The 2017 PIT indicated a 20% decrease in the number of young adults (transitional aged youth) that experienced homelessness on the night of the count since 2015 (242 vs 303).
 - Transitional age youth often experience episodic periods of homelessness, which is likely to be missed in a single-point design study like the PIT.
 - The number of reported homeless families with children declined by 25% between 2015 and 2017 (186 vs. 227).
 - The vast majority (95%) of homeless families are found in shelters or in transitional housing, where they comprise over a third (36%) of all homeless that use shelters.
4. Because the PIT count methodology incorporates hundreds of surveys with individuals not using the shelter system, this report also offered a unique glimpse into the experiences of people who are homeless and sleeping outdoors. Results from the 2017 survey point to a number of notable findings on subpopulations, a few of which include:
- Individuals who reported continuous homelessness tended to be substantially older and were often encountered in encampments near the American River Parkway, in contrast to younger homeless who were interviewed nearer downtown Sacramento.
 - Older individuals indicated as chronically homeless – between 55 and 64 – were also more likely (a 70% greater chance) to report a military past (veteran status) or suffer from a disabling medical condition.
 - Chronically homeless are more likely to suffer from PTSD than the most unsheltered homeless group (54% compared to 46%), and more likely to have a mental condition of any type (64% compared to 57%).

While the significant increases in homelessness in Sacramento County are concerning, the report discusses four key contextual factors that likely contributed, at least partially, to these larger estimates in the 2017 PIT.

Improved methodology

CSUS refined the sampling strategy by which geographic zones were selected for volunteers to canvas on the night of the 2017 PIT. This resulted in a more representative selection of canvassed zones, and in particular included areas of South Sacramento that were likely under-sampled in previous years. Greater care was also given in 2017 to provide volunteers clear routing directions, to ensure that the entire geographic areas were canvassed. We estimate that the improved methodology contributed to approximately 15% greater efficiency in the 2017 estimates; as such, we estimate that the 2015 count of unsheltered persons experiencing homelessness would have been approximately 6% larger if the same methodologies had been implemented that year.¹

Severe weather and flooding

Between December 2016 and January 2017, Sacramento County, and Northern California in general, experienced torrential rainstorms, which resulted in severe flooding throughout the region. Notably, the American River rose to historic levels and flooded many of the riverbank areas that some groups experiencing homelessness use to camp, particularly in the unincorporated parts of the county. The extreme weather conditions likely contributed to significant migration of some homeless communities from more rural parts of the county to the urban center of Sacramento. This was evident by reports of several volunteers who described densely packed “tent communities” in non-flooded parts of the park, particularly near the Garden Highway. Notably, the number of tents recorded by volunteers in 2017 was almost three times the number reported in 2015 (363 vs. 133). Moreover, geo-spatial analysis of the count data indicated a clear pattern of high concentrations of homeless near unflooded parts of the American River. While it is difficult to estimate how many of these individuals in tents would have likely been undercounted under normal conditions, it is reasonable to assume that a significant number were included in the 2017 PIT due to their weather based migration.

¹ The 2017 PIT included a broader set of sampled zones than in previous years, particularly in southern parts of the city of Sacramento. These zones yielded approximately 14.7% of the total count for unsheltered homeless in 2017. By rough approximation, one could assume that the 2015 estimate of 948 unsheltered homeless, which omitted these zones, effectively represented only 85.3% of the total unsheltered homeless that year. Dividing the 948 total by its effectiveness rate of 85.3% suggests the 2015 total unsheltered population was approximately 1,111 ($\frac{948}{85.3\%} = 1,111$). Readers should note that these omitted zones would have only impacted the unsheltered count, and not the sheltered count, which would have remained the same at 1,714. In total the adjusted 2015 count would have been approximately 2,822 ($1,111+1,711=2,822$) or 6% higher than the 2,659 reported.

Growth in homelessness in the state

The rise in homelessness between 2015 and 2017 in Sacramento County is consistent with similar increases recently reported across the state. At the time of this writing, a number of communities have reported significant increases between their 2015 and 2017 estimates for persons experiencing homelessness on a nightly basis:

- 39% increase reported in Alameda County (5,629 vs. 4,040).
- 76% increase reported in Butte County (1,983 vs. 1,127).
- 23% increase reported in Los Angeles County (57,794 vs. 44,359).

Trends of homelessness in Sacramento County are generally consistent with the broader patterns of homelessness in California. For example:

- The high proportion of homeless found sleeping outside in Sacramento (56%) is consistent with California's overall average of 66% unsheltered homeless.
- Sacramento's rate of chronic homelessness of 31% is close in range to California's rate of 25%.
- The majority of homeless veterans in the county are unsheltered (69%), consistent with the state average of 66%.

These statewide trends reflect a confluence of social and economic factors, and highlight that homelessness is a local community issue, but one that is likely affected by broad dynamic trends.

Housing market conditions

Given the recent sharp increases in rental rates in Sacramento and the low stock of affordable housing units in the area, the growth in the number of persons experiencing homelessness is consistent with trends reported by other communities across the country with tight housing market conditions. Analyses of national PIT data have found that rental housing market factors – particularly housing costs – are the strongest predictors of homelessness across the communities. In particular, the proportion of residents in these communities who spend more than 30% of their total income on housing was strongly predictive of the overall homelessness rate in the region. These findings are telling given recent reports by the Sacramento Housing Alliance that 4 out of 10 residents in Sacramento spend over 50% of their monthly income on housing (SHA, 2016).

The report concludes by suggesting a number of recommendations to improve the methodology and implementation of future PIT studies in the county. Although extensive efforts were undertaken to improve the geographic sampling of the 2017 PIT count, in future years further measures could improve the efficiency and accuracy of the PIT count. These include increased data sharing with local law enforcement agencies, using technology to increase survey response rates, greater engagement with youth populations, and additional training of survey volunteers. In addition, future efforts could seek to discover rates of homelessness among LGBTQ populations as well as to better understand the factors that contribute to homelessness in Sacramento County.

Finally, the report discusses some general conclusions about community needs that the above findings identify. These include the need for more Emergency Shelter beds, Permanent Supportive Housing programs in the county, and affordable housing options for residents. While these recommendations are not in of themselves new, or unknown by most homeless service providers and advocates, the findings of this report likely highlight a new level of severity for these issues in Sacramento County.

Contents

- ACKNOWLEDGEMENTS 2**
- EXECUTIVE SUMMARY 3**
- INTRODUCTION 10**
 - COLLABORATIVE EFFORT 10
 - REPORT ROADMAP 11
- SECTION 1 METHODOLOGY..... 13**
 - ESTIMATING SHELTERED HOMELESS 13
 - ESTIMATING UNSHELTERED HOMELESS..... 13
 - MAPPING & SAMPLING 14
 - CANVASSING AND ENUMERATING 17
 - SURVEY INTERVIEWS 18
 - SURVEY CLEANING AND ANALYSIS 19
 - LIMITATIONS 21
- SECTION 2 GENERAL FINDINGS 23**
 - NIGHTLY ESTIMATES 23
 - CHANGES OVER TIME 24
 - CONTEXT TO CONSIDER..... 25
 - Severe weather and flooding* 25
 - Growth in homelessness in the state*..... 26
 - Housing Market*..... 27
 - DEMOGRAPHICS OF UNSHELTERED HOMELESS 27
- SECTION 3 SUBPOPULATIONS 30**
 - CHRONICALLY HOMELESS..... 30
 - VETERANS 36
 - TRANSITIONAL AGE YOUTH 40
- OTHER RISK FACTORS 42**
 - FORMER FOSTER YOUTH 42
 - VICTIMS OF DOMESTIC VIOLENCE 43
 - FAMILIES WITH CHILDREN 43
- SECTION 4 GEO-SPATIAL ANALYSIS OF THE 2017 PIT 45**
 - ESTIMATES BY CITY 45
 - GIS MAPS 47
 - FIGURE 15: SPATIAL DISTRIBUTION COUNTY MAP 47
 - FIGURE 16: SPATIAL DISTRIBUTION DOWNTOWN SACRAMENTO MAP 48

EXTRAPOLATED VS. SAMPLED ZONES..... 49

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS 50

WORKS CITED 56

APPENDIX 58

HUD DATA TABLES 58

EXTRAPOLATING PROCESS 64

ENUMERATION INSTRUCTIONS 65

SURVEY INSTRUMENT 67

STUDENT CONTRIBUTORS..... 71

approximately 6% larger if the same methodologies had been implemented.¹² Taking into consideration this adjusted-2015 estimate suggests:

- The *real* growth in total homeless in Sacramento County was approximately 30% between 2015 and 2017 (3,665 vs. 2,822).
- The *real* growth in unsheltered homeless in Sacramento County was approximately 85% between 2015 and 2017 (2,052 vs. 1,111).

Context to Consider

The *real numbers* of individuals experiencing homelessness in the county are undoubtedly even higher than the 2017 PIT estimates, particularly given the limitations and narrow definitions of homelessness assumed in the study design.¹³ Nonetheless, the above estimates are useful to consider as a standard barometer of relative change in homelessness; assuming that PIT studies are implemented generally consistently from year to year, their results likely capture relative change in the homeless population over time. It is clear that even considering the adjustments in methodologies in 2017, homelessness has likely increased in Sacramento County by at least a third (30%).

A reported rise in the number of homeless is often met with concern by the public, who may worry about the number of homeless migrating from other communities, the effectiveness of current programs, and public safety in general. While these are important issues to consider, the authors of this report nonetheless believe it is important to consider the rise of homelessness in the context of the following contributing factors:

Severe weather and flooding

Between December 2016 and January 2017, Sacramento County, and Northern California in general, experienced torrential rainstorms, which resulted in severe flooding throughout the region. Notably, the American River rose to historic levels and flooded many of the riverbank areas that some homeless use to camp, particularly in the unincorporated parts of the county. Indeed, in the week prior the 2017 PIT CSUS had to adjust or abandon many of the geographic zones in the American River Park used in prior

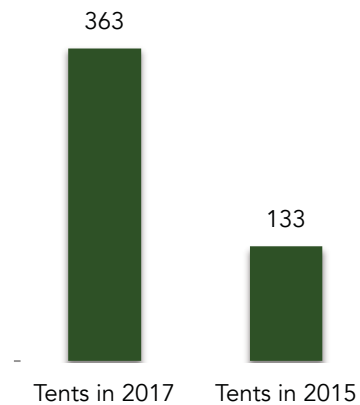
¹² The 2017 PIT included a broader set of sampled zones than in previous years, particularly in southern parts of the city of Sacramento. These zones yielded approximately 14.7% of the total count for unsheltered homeless in 2017. By rough approximation, one could assume that the 2015 estimate of 948 unsheltered homeless, which omitted these zones, effectively represented only 85.3% of the total unsheltered homeless that year. Dividing the 948 total by its effectiveness rate of 85.3% suggests the 2015 total unsheltered population was approximately 1,111 ($\frac{948}{85.3\%} = 1,111$). Readers should note that these omitted zones would have only impacted the unsheltered count, and not the sheltered count, which would have remained the same at 1,714. In total the adjusted 2015 count would have been approximately 2,822 (1,111+1,711) or 6% larger than the reported 2,659.

¹³ In section 4 of this report we consider other data sources and statistical approaches to provide a less-conservative estimate of homelessness within each of the seven incorporated cities in the county. This includes extrapolating estimates from un-sampled regions of the county (estimating the predicted number of homeless that could have been encountered in regions not-canvassed on January 25th) and incorporating data collected beyond the time parameters of the PIT study design.

PIT studies due to severe flooding. The extreme weather conditions likely contributed to significant migration of some homeless communities from more rural parts of the county to the urban center of Sacramento. This was evident by reports of several volunteers who described densely packed “tent communities” in non-flooded parts of the park, particularly near the Garden Highway. Notably,

- The number of tents recorded by volunteers in 2017 was almost three times the number reported in 2015 (363 vs. 133).

Figure 3:Tents Reported



- The additional 230 tents in 2017 represented an additional 460 homeless individuals.
- These additional individuals account for approximately 47% of the total change in homelessness between 2015 and 2017 (470 out of the 941 increase in adjusted unsheltered).

- It is likely that individuals in many of these tents generally reside in areas of the American River that are not typically canvassed in PIT studies. But due to flooding and their subsequent migration, these individuals were more likely to be counted in the 2017 PIT than in previous years. While it is difficult to estimate how many of these individuals would have likely been undercounted under normal conditions, it is reasonable to assume that a significant number were included in the 2017 PIT due to their weather based migration.

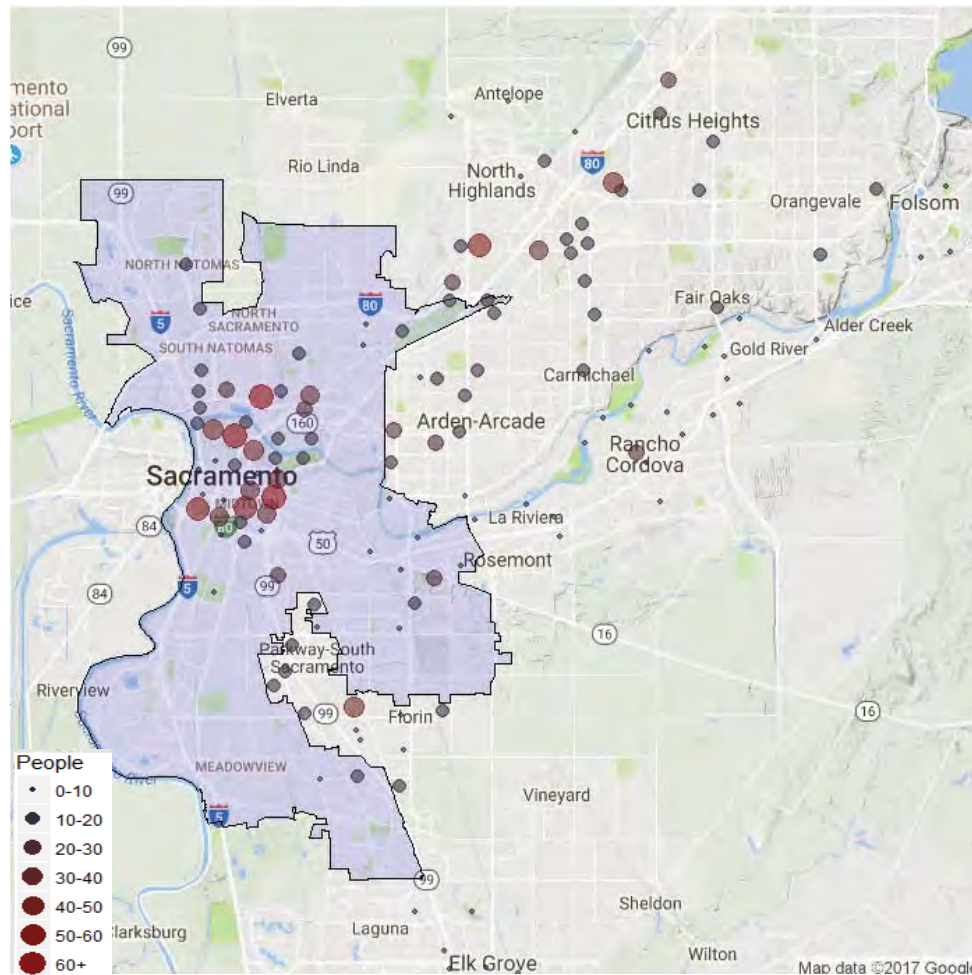
Growth in homelessness in the state

California has the largest homeless population in the US; approximately a quarter of all people experiencing homelessness in the country reside in the state (AHAR, 2015). The state also has the highest proportion of chronically homeless individuals—individuals with a disability who have experienced prolonged periods of housing instability. These statewide trends reflect a confluence of social and economic factors, such as the high cost of living, dearth of affordable housing and a high poverty rate. They also highlight that homelessness is a local community issue, nonetheless affected by broad statewide dynamics. This is important to consider in light of the above reported increases in the 2017 PIT estimates. Indeed, the rise in homelessness between 2015 and 2017 in Sacramento County is consistent with similar increases recently reported across the state. At the time of this writing, a number of communities have reported significant increases between their 2015 and 2017 estimates for nightly homeless:

- 39% increase reported in Alameda County (5,629 vs. 4,040).
- 76% increase reported in Butte County (1,983 vs. 1,127).

GIS Maps

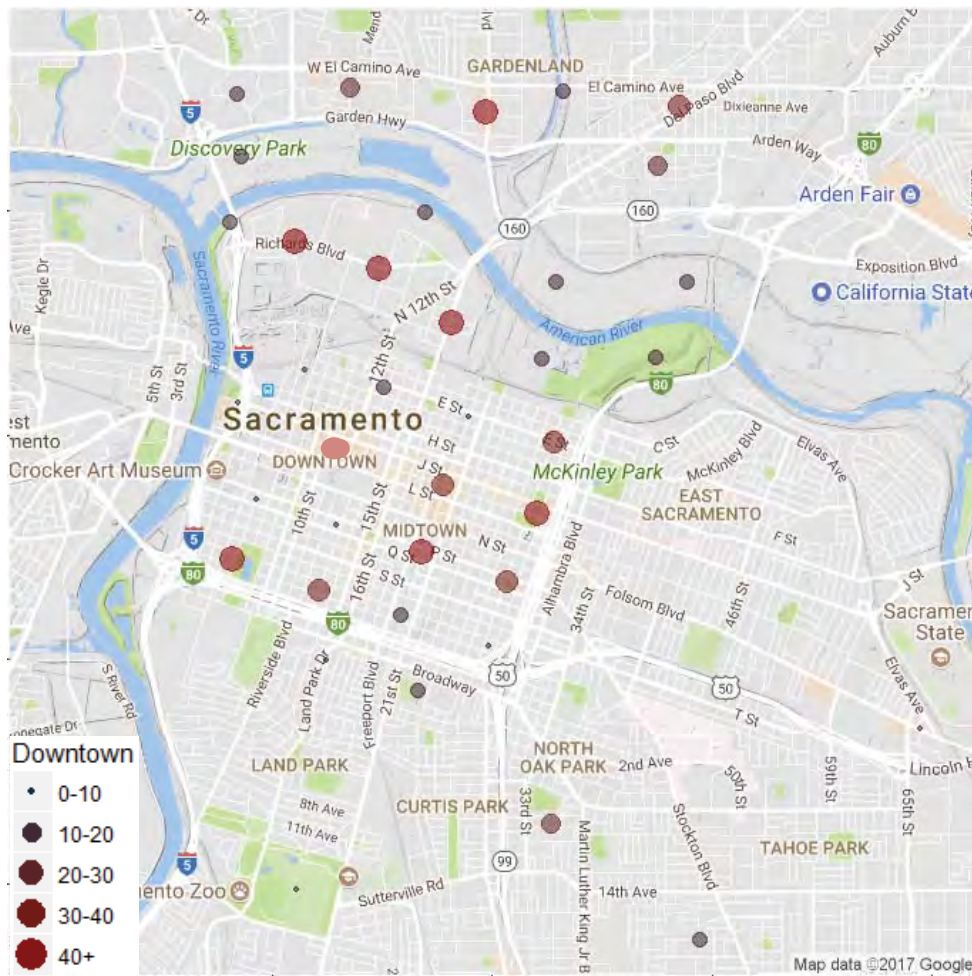
Figure 15:
Spatial Distribution County Map



As with most spatially defined data, one of the best mechanisms for understanding patterns in homeless population density is through GIS mapping. The above map provides a clear picture of many of the trends we have discussed throughout this report. In this image, the light blue outlined space is the Sacramento City boundaries, while the counted (and estimated) populations are represented by a color and size gradation – so that the larger bright red circles represent high-density zones and the smaller grey and black circles represent low-density zones.

As previously mentioned, Sacramento and the surrounding areas saw a record-breaking winter weather system that caused severe flooding – especially around the cresting American River. The map shows that, especially in the length between Rosemont and Folsom, volunteers found very few homeless in most of the areas situated next to the river. Indeed, with the exception of Rancho Cordova, spatial patterns strongly suggest that homeless individuals were pushed north into the less densely populated unincorporated areas of Sacramento County. In future PITs, it is expected that many more homeless individuals will return to areas near the river – a trend that will be particularly interesting to investigate.

Figure 16:
Spatial Distribution Downtown Sacramento Map



Focusing on downtown Sacramento, one can also clearly see concentrations of individuals being pushed further north and south from the river's edge. This is especially true near Discovery Park and the State Fairgrounds – two areas that saw the largest impact from the floods. The areas near Richards Boulevard and El Camino Avenue saw significant numbers of homeless individuals in tents, which further illustrates the impact of the flooding on migrating homeless communities. It is also evident a large portion of the homeless population in Sacramento is found in the midtown corridor, and along the main highways. In the midtown corridor, specifically between K and Capitol and from 23rd to 26th streets, there are four large churches for homeless individuals to find shelter. Between P and R streets from 19th to 23rd there are also large warehouses and structures under which homeless individuals can find shelter – particularly near the Safeway, the Light Rail stop, and the Sacramento Bee offices. As expected, there is a dense population of homeless individuals near the Capitol and Caser Chavez park. Along the main highways, there are a number large parking structures beneath the overpasses as well as sections between X and Broadway that see little regular foot traffic. These areas are ideal spaces for homeless individuals to take shelter during inclement weather.

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EXHIBIT L

**TWO RIVERS TRAIL PHASE II
INCONSISTENCIES WITH AMERICAN RIVER PARKWAY PLAN**

Sacramento County 2008 American River Parkway Plan	Inconsistency
<p>Plan Introduction: <i>“The Parkway’s open spaces and natural resources provide Parkway users with a highly-valued natural setting and feeling of serenity, in the midst of a developed urban area. For purposes of the Parkway Plan, it is important that these values are acknowledged. The following elements are valued aspects of the Parkway experience that should be considered as part of the aesthetic values of the Parkway:</i></p> <ul style="list-style-type: none"> • <i>Feeling of peace and tranquility experienced by the people who visit and use the Parkway, and</i> • <i>Feeling and experience of harmony that prevails between what is natural in the Parkway and the animals that live in it.”</i> 	<p>The “feeling of peace and tranquility” and “feeling and experience of harmony that prevails between what is natural and the animals will live in it” will of course be degraded for the thousands of current users by the addition of a paved bike trail. As compared to its current natural state, the addition of a paved bike trail works against this “peace, tranquility, and harmony with nature” framing of the Plan.</p> <p>There is already a paved bike trail on the north side of the river; the last wild space on the south side of the river should be preserved to maintain the “peace and tranquility” option for trail users.</p>
<p>Chapter 2, Policy 3.2: <i>“Agencies managing the parkway shall protect, enhance and expand the parkway’s native willow, cottonwood, and valley oak-dominated riparian and upland woodlands that provide important shaded riverine aquatic habitat (SRA), seasonal floodplain, and riparian habitats; and the native live oak and blue oak woodlands and grasslands that provide important terrestrial and upland habitats.”</i></p>	<p>The <i>Phase II</i> project plan includes destruction of natural habitat. There is a mitigation plan, but this existing natural habitat will be destroyed forever.</p> <p>There is already a paved bike trail on the north side of the river; why not preserve the last wild space on the south side of the river to maintain this habitat?</p>
<p>Chapter 2, Policy 8.11: <i>“Parkway trail connections to other local, regional and State trails shall be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway’s ecosystem”</i></p>	<p>The project as proposed would result in significant impacts to vegetation, including the removal of numerous trees and elderberry shrubs (home to the threatened valley elderberry longhorn beetle). It has been stated that the City expects that over a million dollars will need to go towards mitigating the environmental impacts of this project. This is not consistent with designing for “minimal damage”.</p>

Sacramento County 2008 American River Parkway Plan	Inconsistency
<p>Chapter 10, Policy 10.26: <i>“Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area.”</i></p> <p><i>“Due to the limited access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area. Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area. Acceptable activities include fishing, kayaking, wading, sunbathing, hiking, volleyball, and related beach activities.”</i></p>	<p>A paved bike trail is a “physical change that would attract groups of users.” The project facilitates use by additional individuals. Additionally, the report statement, <i>“The proposed trail will allow more Parkway users to access Paradise Beach”</i> is a direct contradiction to the report’s previous statement that it won’t attract additional groups of users.</p> <p>A paved bike trail would also exacerbate parking issues at Glen Hall Park. As an access point for a paved portion of the Parkway, additional individuals will drive their bikes into the area and park at that location.</p> <p>The narrowness and unstable soil of the area proposed for paving would lead to substantial disruption, including retaining walls and levee cut-and-fill in order to construct the trail.</p>
<p>Chapter 2, Policy 7.8: <i>“Facilities and other improvements in Protected Areas shall be limited to those which are needed for the public enjoyment of the natural environment. Extensive development is not appropriate.”</i></p>	<p>The <i>2008 Parkway Plan</i> says projects should be “limited to those which are needed for the public enjoyment of the natural environment”.</p> <p>The current trail configuration already provides “public enjoyment of the natural environment.”</p> <p>In addition, another paved trail is “needed” because a paved trail already exists on the north side of the river.</p>
<p>Chapter 10: Paradise Beach: From the description of the area: <i>“Paradise Beach is designated as a “Protected Area by the Parkway Plan; This area contains many elderberry bushes and provides excellent habitat for the Valley Elderberry Longhorn Beetle. Due to the limited access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area.”</i></p>	<p>The <i>Phase II Plan</i> directly contradicts the statement in the <i>2008 Parkway Plan</i> that this be an “informal” recreation area. A paved bike trail would create a “formal” recreation area and destroy portions of this “Protected Area” in the process.</p> <p>In particular, the elderberry bushes critical to the survival of the Valley Elderberry Longhorn Beetle would be destroyed by trail construction.</p>
<p>Chapter 10: Paradise Beach: From the description of the area: <i>“Beach users funnel through a single access point and fan out to the various use areas”</i></p>	<p>The paved bike trail would create substantial conflict between various types of users of this area coming through the “single access point.”</p>
<p>“Safety and Security” Subchapter: <i>“Illegal camping is especially common in the westerly five mile reach from Discovery Park to Cal Expo...The presence of this population undermines other Parkway visitors’ sense of security and safety.”</i></p>	<p>Illegal camping is concentrated at Sutter’s Landing, where the pavement ends. The pavement would facilitate the travel of illegal campers into this sensitive area.</p>

<p style="text-align: center;">Sacramento County 2008 American River Parkway Plan</p>	<p style="text-align: center;">Inconsistency</p>
<p>Chapter 2, Policy 11.5: <i>“New facilities and programs shall not be developed unless the financial resources to operate and maintain them are identified and available”</i></p>	<p>Both the City and the County have stated that no new funding has been identified for maintenance. The paved trail is thus inconsistent with these statements in the <i>2008 Parkway Plan</i>.</p> <p>The Bank Protection Working Group report (March 13, 2018) provides preliminary results of the Paradise Bend to Howe Avenue Reach. Four of the 6 “Tier 1 Segments” (immediate threat of failure with 160K cfs flow) are in the Paradise Beach area. This is too fragile an area to build a paved trail that will likely need periodic repair.</p>
<p>Chapter 2, Policy 8.11: <i>“Parkway trail connections to other local, regional and State trails shall be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway’s ecosystem”</i></p>	<p>The project as proposed would result in significant impacts to vegetation, including the removal of numerous trees and elderberry shrubs (home to the threatened valley elderberry longhorn beetle). Although the environmental review has not yet been completed, the City expects that over a million dollars will need to go towards mitigating the environmental impacts of this project. This is inconsistent with designing for “minimal damage”.</p>

December 4, 2018

SENT VIA EMAIL (tbuford@cityofsacramento.org)

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

**RE: Errata to Comments on the Initial Study/Mitigated Negative
Declaration for the Two Rivers Trail Phase II (K15125000)**

Dear Mr. Buford:

Save Don't Pave's comment letter on the Initial Study/Mitigated Negative Declaration for the Two Rivers Trail Phase II (K15125000) was timely submitted via email to your attention on November 30, 2018. However, in reviewing the comment letter, we identified the need for the following corrections:

- Incorrect address on letterhead – The correct address is 510 8th Street, Sacramento, CA 95814
- Page 21, first sentence of the last paragraph, should be corrected to read as follows: “Recent experience ~~provides~~ showcases this shortsighted approach.”
- Page 25, second sentence of the second paragraph, which reads “The area immediately adjacent to the Project area has a perineal homeless population, particularly near Sutter’s Landing Regional Park and along the American River south bank.” The word “perineal” in this sentence should be corrected to “perennial”.
- Page 28, first sentence of the fourth paragraph, should be corrected to read as follows: “Last, the MND fails to acknowledge that ~~an~~ increased use and traffic due to the project would result in a commensurate increase in the amount of trash generated at Glenn Hall Park.”

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
December 4, 2018
Page 2 of 2

Thank you for your attention to this matter. Should you have questions, please do not hesitate to contact our office.

Very truly yours,

SOLURI MESERVE
A Law Corporation

By:


Osha R. Meserve

ORM/mre

cc (via email): Save Don't Pave

Two Rivers Trail Phase II

City of
SACRAMENTO

Written comments on the IS/MND must be received **no later than 4 p.m. on November 30, 2018**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Julie Lincoln

Organization: Resident

Mailing Address: 5708 Sandburg Dr Sacramento, CA 95819

E-mail: harriman@surewest.net

Comment: On the Two Rivers Trail Glen Hall Park
Access. The current alternative 1 puts
people very close to Lee ~~By~~ + Terrise Ruth's
house. Please make Alternative #3 the
primary access point for the trail. This
puts the Glenn Hall Park Access point
~~more~~ immediately behind the pool.

Thank you for all the hard work ~~the~~
and thoughtfulness that has gone into
the design of this trail!

Two Rivers Trail Phase II

Written comments on the IS/MND must be received **no later than 4 p.m. on November 30, 2018**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Jim Scriver

Organization: None - Resident

Mailing Address: 112 Adm Way

E-mail: 4113 jim@gmail.com

Comment: Looks very well done the CEQA document,
as far as I can tell from the two presentations
I have attended. Looks like a fair consideration
of the natural and human environment.

Mitigation measures are well thought out
and more than adequate.

I fully support the construction of the
trail as proposed, preferring Alternative 3 of
the handicap access at Glenn Hall Park.

I can't wait to have safe convenient bicycle
access to Midtown.

Thanks
JS

Two Rivers Trail Phase II

City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

OCT 31 2018

OCT 31 2018

RECEIVED

Written comments on the IS/MND must be received **no later than 4 p.m. on November 30, 2018**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Carol V. Michael

Organization: _____

Mailing Address: 4931 P. St 95819

E-mail: carolmichael9@icloud.com
Carolmichael9@icloud.com

Comment: Without going into the long drawn out
opposition arguments, suffice it to say:

- ① We have other far more pressing financial + cultural issues to address.
- ② Why not build a cyclist/pedestrian bridge near 80 Cap City Freeway / railroad bridge?
This addresses cycle-commuters + leaves the River park area wild.

Thank you for considering my thoughts.

Carol V. Michael
916 477-4092

Tom Buford

From: Michael O'Brien <mikeobr1@icloud.com>
Sent: Thursday, November 1, 2018 11:56 AM
To: Tom Buford
Subject: Two Rivers Trail Phase II Comment Card

Name: Michael O'Brien
Organization: none/self
Mailing and Property Address: 230 Sandburg Drive
Sacramento, CA 95819
Email: mikeobr1@icloud.com

Comment: I believe the trail plan has been carefully considered, planned and vetted. I am in full support of it being constructed, as outlined, with a paved trail area along the base of the levy adjacent to the River park area/neighborhood, and ADA access from Glenn Hall Park.

I have lived River Park for 33 years, both along the river levy and elsewhere. We have raised our kids here and own a couple homes in the neighborhood. Improving access to the bike trail, and also to River Park will enhance livability, home values and public safety.

Thank you.

Two Rivers Trail Phase II

City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

COMMUNITY DEVELOPMENT
DEPARTMENT

NOV 02 2018

Written comments on the IS/MND must be received **no later than 4 p.m. on November 30, 2018**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: LELAND H. RUTH

Organization: —

Mailing Address: 5397 HALE COURT
Sacramento, CA 95819

E-mail: helandRuth@cox.com

Comment: Two Rivers Trail Phase II
Glenn Hall Park Access

My wife and I believe that
alternative 3 is the most practicable
access to the trail. It seems to
make the smallest foot print and
does not require removal of trees.

Our second choice is
Alternative #2

Leland H. Ruth

Two Rivers Trail Phase II

City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

NOV 05 2018

Written comments on the IS/MND must be received **no later than 4 p.m. on November 30, 2018**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: ROBERT MONTGOMERY

Organization: River Park Neighborhood Assn.

Mailing Address: 5411 STATE AVE. SAC. CA. 95819

E-mail: RM1 @ srewest.net

Comment: I support the proposed bike trail extension. As a biker, I look forward to having access to the new trail. I do not believe that it will cause problems for residents who live on or near the levee.

Tom Buford

From: Jason Lynch <jasonlynch@surewest.net>
Sent: Monday, November 12, 2018 9:15 AM
To: Tom Buford
Subject: Two Rivers Trail comment

Hello Two Rivers Team, I have a comment:

The existing low ground in Segment 3 sometimes floods under the UPRR. When that happens, users bypass the floodwater by using the top of the levee and crossing the RR tracks. The Two Rivers Project intends to add fences and locked gates that seem to eliminate that option, for the usual reasons.

Let's not create choke points that will close the trail. If you cannot keep the top of the levee open, please raise the grade a few feet under UPRR and Capital City Freeway.

Thank you,
Jason Lynch
Sacramento

Tom Buford

From: Jason Lynch <jasonlynch@surewest.net>
Sent: Monday, November 12, 2018 9:53 AM
To: Tom Buford
Subject: Two Rivers Trail comment

Hello Two Rivers Team, I have a comment:

The recently-completed Phase II trail at Sutter's Landing is very nice. However, the shoulder on the river side is not performing as advertised or designed, and I hope the upcoming Phase II trails might learn from the experience.

The shoulder width is presumably 4 ft on the river side of the trail, but there are long stretches (toward the UPRR bridge) where overgrowth makes it zero feet wide and pedestrians are forced onto the pavement. It's not clear that the design has effective weed barriers or a realistic perception of the maintenance practices. Mowing seems to occur on the levee side of the trail but not on the river side of the trail. The IS/MND claims that ARFCD vegetation removal will occur up to 4 times annually, mowing 4 ft beyond the shoulder. That would be 8 ft from the edge of pavement. That is clearly not happening. If you cannot depend on ARFCD, please make design changes (extra width and barriers) to ensure the purpose and need are provided by the project.

The shoulder design is graded to drain toward the river, with a break point where the granite shoulder ends and the fill begins. Looking at the recently-completed Sutter's Landing segment, that break point is rounded over and lost to time. What remains is walkable, but not always runnable because your right foot is nearly level but your left foot pounds a bit of a side slope. Runners will tell you that's a recipe for injury.

The part of the trail that drops from the Skate Park down to the toe of the levee has some drainage problems. It looks like the designers hoped surface flow would be effective, and it has been. The decomposed granite from the levee side of the trail is washed up and carried over the top of the pavement, making a real mess. When the surface flow hits the shoulder on the river side, it causes a lot of erosion and ruts up the shoulder so that it is not useable for pedestrians or runners.

Thank you,
Jason Lynch
Sacramento

Tom Buford

From: Jason Lynch <jasonlynch@surewest.net>
Sent: Monday, November 12, 2018 10:25 AM
To: Tom Buford
Subject: Two Rivers Trail comment

Hello Two Rivers Team, I have a comment:

Figure 1 of the IS/MND shows the Previously Constructed portion of Phase II in Sutter's Landing. The route traced on the map follows the road (28th St) from McKinley Village Way to the skate park. The route on the map does not follow the expected, existing bike trail that runs behind the bocce courts and the solar-covered parking lot. Judging by this figure the project's intent is to "share the road", and abandon the alignment next to the landfill.

My main comment is about that portion of the trail behind the bocce courts. If it is part of your final plan, that location has two low spots that trap runoff from the hillside, completely blocking the trail with a puddle 1-4" deep and 15' long. Because it stays wet for weeks at a time, stuff grows in the puddle and it gets a little slippery for runners. It needs drainage systems to take runoff under the trail instead of over it. I hope the Two rivers project can add that location to its scope.

Thank you,
Jason Lynch
Sacramento

Two Rivers Trail Phase II

City of
SACRAMENTO

COMMUNITY DEVELOPMENT
DEPARTMENT

NOV 13 2018

Written comments on the IS/MND must be received no later than 4 p.m. on November 30, 2018. Comments may be submitted at this meeting, sent via email to tbuiford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: ERIC SCHRANE

Organization: _____

Mailing Address: 5323 JEROME WAY
SACRAMENTO, CA 95819

E-mail: _____

Comment: _____

PLEASE RECONSIDER THE TWO RIVERS TRAIL. AS AN AVID USER OF THE TRAIL, PAVING WILL CAUSE THE FOLLOWING:

- LESS OPTIONS FOR KIDS TO USE TRAIL DUE TO SPEEDING CYCLISTS.
- FEWER OPTIONS FOR THE BLIND/VI COMMUNITY. I RUN/GUIDE RUNNERS AND WE'LL USE USE OF THE TRAIL W/ ADDED TRAFFIC
- HOWEVER, ENCROACHMENT ON TAX-PAYERS, VOTERS.

THIS IS INAPPROPRIATE AND WILL CHANGE THE FABRIC OF OUR WONDERFUL NEIGHBORHOOD.

Tom Buford

From: The Tubo's <tubofamily@gmail.com>
Sent: Tuesday, November 20, 2018 4:45 PM
To: Tom Buford
Subject: comments on Two Rivers Bike Trail Phase II

I have read the report and look forward to seeing the trail constructed, with the narrower width as discussed in the introduction. I see the impacts of the trail construction as being outweighed by the benefits of a smooth bike trail connecting existing sections.

Thank you, Alison French-Tubo
3798 Erlewine Circle
Sacramento, CA 95819

Tom Buford

From: Thomas Cordano <tcord2@gmail.com>
Sent: Wednesday, November 21, 2018 11:01 AM
To: Tom Buford
Subject: Save Don't Pave

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

November 20, 2018

Dear Mr. Buford;

I am a city of Sacramento resident and I visit the Two Rivers Trail project (Erlywine access) area on a regular basis. I am

interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

Aesthetics

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that bulldozes through the

existing project area. The project area is currently in a natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The proposed project, an asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail

(Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail.

Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially

degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two

Rivers Trail as a base line of comparison.

Geology and Soils

Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, the project would expand recreational opportunities at the project site by offering a paved multi-use trail. The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area. The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, elderberry beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the

MND states:

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists.

Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

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Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Many of the pedestrians are elderly. don't react quickly, nor hear very well. Paying attention to their dogs.

And people of all ages are prone to daydreaming. Escape -- that's one of the reasons people go the Yosemite, and the Erlywine river access.

Bicycles - Is there any speed limit imposed on them.

I just don't mean one on the books,
that has never been enforced.

I mean a speed limit, like those posted on streets and highways where people are cited sometimes.

Thank you for your time and attention to these matters.

Sincerely,

Thomas J. Cordano
967 El Dorado Way
Sacto., CA. 95819

COMMUNITY DEVELOPMENT
DEPARTMENT

November 22, 2018

NOV 23 2018

RECEIVED

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Dear Mr. Buford;

I am a 63 year old city of Sacramento resident. I have lived in River Park since I was born and have used the American River Parkway behind River Park for recreation, both as a boy and as an adult. I believe the area should be preserved in its current state for future generations to enjoy as I have.

I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

1. Aesthetics

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that bulldozes through the existing project area. The project area is currently in a natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The proposed project, an asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail (Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail. Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two Rivers Trail as a base line of comparison.

2. Geology and Soils

Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again, this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail.* The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, elderberry beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

4. Biology

The MND discusses both temporary and permanent impacts to riparian habitat, protected trees and threatened or endangered species. However, the analysis was not complete nor rigorous enough given the exceptional riparian habitat and historic environmental value of the project area. For example, the MND fails to fully analyze the importance of the project area to the VELB. Without this perspective, it is difficult to provide a meaningful evaluation of the impacts and the adequacy of mitigation. The MND reveals that the project will impact a large number of elderberry shrubs. However, it appears that the MND underestimated the number of elderberry shrubs that may be impacted by the proposed project. The United States Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) states that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. The USFWS Framework also states, *Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity.* The MND surveys for elderberry shrubs found a total of 501 elderberry shrubs within 165 feet of the project footprint. However, the MND reports that only some of the 501 elderberry shrubs surveyed would be impacted by the project. The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. An analysis should be provided about why elderberry shrubs that could be impacted would not be affected by the project.

The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

The USFWS Framework emphasizes the importance of keeping mitigation close to the site of impact. The MND indicates that mitigation for impacts to VELB will be accomplished by purchasing credits from an unspecified mitigation bank. However, the MND does not identify where credits would be purchased, therefore it is unclear whether mitigation would occur close to the site of impact. In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that need to be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if:

- 1) *the planting location is suitable for elderberry growth and reproduction; and*
- 2) *the City is able to protect the shrub and ensure that the shrub becomes reestablished.*

The MND does not provide any assessment of whether these criteria may be met in areas in close proximity of impacts and it is therefore not clear whether it will be possible to relocate shrubs nearby.

Finally, the MND does not adequately analyze the impacts to a riparian area. The project will result in the substantial degradation of the quality of the environment and the reduction of habitat of endangered species of plant or animal species. While the MND does review temporary impacts due to construction, a majority of the mitigation measures only address the temporary impacts. The one mitigation measure that does address permanent impacts does not provide a significant level of detail to allow the reader to determine in the proposed mitigation is adequate. Replanting may or may not return the project area to its original state. Off site credits may or may not be available. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

6. Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

Sincerely,



Mark Heilman
141 Ada Way
Sacramento CA 95819

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Blvd.
Sacramento, CA 95811

Dear Mr. Buford.

Most days, rain or shine, I walk both the upper and lower levies of the Two Rivers Trail project area. While walkers/runners, strolling families and bike commuters are always present to some degree the levies usage does change with the seasons. In the Spring and Fall we have Bike Clubs and Birders who heavily use the upper and lower levy respectively. This Sunday, a group of more than 50 cyclist rode the upper levy. This is not an uncommon weekend occurrence. Birders from all over the area come with binoculars and walk the lower levy trail sometimes setting up their cameras with tripods on the trail. The Birder's numbers can be a single person or in clubs of more than ten.

Currant use of the levies has naturally evolved to reflect best usage. Aesthetically and for safety the upper levy offers vistas and the sight lines needed for biking. While the lower levy trail's aesthetics offer the "country" feel that is difficult if not impossible to find within the City Limits of Sacramento. Many people who walk the lower trail stop mid-trail to point out a bird, animal or the close beauty of the river.

This year I've spotted coyotes with a kill, deer swimming, skunks, opossums, two species of rabbits and innumerable birds. None of these sightings are uncommon to the people who walk the lower trail. This irreplaceable experience of Nature will be lost if we, even with the best intentions, destroy what is there now and think we will be able to recreate it.

If straightening and paving occurs there will be no ability to watch for wildlife as walkers will be watching for bikes. The upper levy will still attract cyclist because of the good sight lines which means we will end up with two trails neither of which will be conducive for the contemplation of Nature.

Having walked and biked on many other American River Parkway trails there are none within the City of Sacramento that offer the same quality of easily viewable wildlife. I urge the City to reevaluate and perform a more extensive Environmental Impact Review of this project. It has not adequately addressed the damage it will do to the flora, fauna and the Sacramento public's ability to so readily access and view wildlife in the wild. While the trail was man-made it has evolved over decades into a nature setting and is worth preserving.

Respectively

Susan Hausmann
94 Sandburg Drive
Sacramento, CA 95819

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

November 28, 2018

Dear Mr. Buford;

This is a drastically redacted version of a template provided by the group known as Save Don't Pave. I am assuming you will receive numerous versions of their suggested letter so I have cut it back severely hoping it retains the main points because repetition of important points is often useful. **At the end of the note I have added item 7**, my personal comments regarding my experience with building bike paths in the city parks of Minneapolis.

I am now a city of Sacramento resident. I visit the Two Rivers Trail project area at least 5 days a week. Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project.

1. Aesthetics

The project area is currently in a near natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The project will substantially interfere with an important scenic resource. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be.

2. Geology and Soils

Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. A geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. Recreation

The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

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The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs may grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

The USFWS Framework emphasizes the importance of keeping mitigation close to the site of impact. However, the MND does not identify where credits would be purchased, therefore it is unclear whether mitigation would occur close to the site of impact.

Finally, the MND does not adequately analyze the impacts to a riparian area. While the MND does review temporary impacts due to construction, a majority of the mitigation measures only address the temporary impacts. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information is incomplete.

- 6. Adequate Environmental Review and Response to Comments.** While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project.

- 7. Personal comments related to item 5 re transportation.** I moved to Sacramento from Minneapolis. Before I left there, the city built paved paths around many of the lakes in city parks for which Minneapolis is justly proud. There was immediate conflict as Sacramento has experienced mixing fast moving bicycles, scooters, roller bladers, etc with pedestrians. An initial attempt to paint lanes to separate the groups was an utter failure so separate paved paths eventually had to be built. Such a solution simply will not work for the Two Rivers Trail Project. If a paved bicycle path must be built it would be far better to build it on top of the levy where far far fewer pedestrians walk.

Thank you for your time and attention to these matters.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Steve Anderson', with a long horizontal flourish extending to the right.

Steve Anderson

1055 Perkins Way

Sacramento, CA 95818

Nov 8 2018

RECEIVED 5705 Moddison Ave.
Sacramento, Ca. 95819
November 28, 2018

Dear Mr. Buford;

We are Sacramento city residents having lived in the community of River Park (near the Two Rivers Trail project area) for the last 35 years. We visit the Two Rivers Trail project area with our children and grandchildren on a regular basis. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are about issues of Transportation, Recreation, and finally the Aesthetics as follows:

Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. I avoid walking on bike paths because I am afraid of getting hit or of falling. There is no room for walkers on bicycle speedways. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete on this issue.

Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail*. The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, elderberry beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

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Aesthetics

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My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) to be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

Sincerely,



Cheryl Franzi and Gregory Jamnetski



Tom Buford

From: Emmy Mignano <emignano@surewest.net>
Sent: Wednesday, November 28, 2018 6:19 PM
To: Tom Buford
Subject: Two Rivers trail

As a resident of River Park and a regular user of the paths that border River Park, I have several concerns.

Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

6. Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

I was a bicycle commuter for 18 years. I commuted by bike rain or shine, in the dark, in the wind, always using surface streets. The updates to Elvas Avenue could work for many people who prefer a less trafficked commute. Most bicyclists don't commute during the winter or during "bad" weather. Why pave unnecessarily?

With the improvements in bike tires, many bicycles can already access the trail that borders River Park. I have had to stand aside for large groups of bikes on weekends, and, most recently, Jump bikes. Does the plan provide for pedestrian safety? How will leashed dogs be accommodated?

It appears that the current users will be replaced by cyclists. How will that be an improvement?

Thank you for your time and attention to these matters.

Sincerely,
Emmy Mignano
5540 Caleb Avenue
Sent from my iPad

Tom Buford

From: Gregory Mignano <gmignano@surewest.net>
Sent: Thursday, November 29, 2018 10:29 AM
To: Tom Buford
Subject: Two Rivers Trail

Dear sir:

I am a 34 year resident of River Park and oppose the proposed paving of parts of our levee. It is past time to halt degradation of natural landscape and habitat in our community.

As to the needs of cyclists, the city should continue creating bike lanes along city streets.

Thank you for your consideration,

Gregory Mignano

Sent from my iPhone

Tom Buford

From: Tracy Keith <tracymkeith@gmail.com>
Sent: Thursday, November 29, 2018 10:12 PM
To: Tom Buford
Subject: Two Rivers Trail Project Public Comment

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

November 29, 2018

Dear Mr. Buford;

I am a city of Sacramento resident, living in the River Park neighborhood along the levee. I live in the Two Rivers Trail project area **and** visit the Two Rivers Trail project area on a regular basis. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

1. **Aesthetics**

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that bulldozes through the existing project area. The project area is currently in a natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The proposed project, an asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail (Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail. Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two Rivers Trail as a base line of comparison.

2. **Geology and Soils**

Phase I of the Two Rivers Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. **Recreation**

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail*. The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation

facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

4. Biology

The MND discusses both temporary and permanent impacts to riparian habitat, protected trees and threatened or endangered species. However, the analysis was not complete nor rigorous enough given the exceptional riparian habitat and historic environmental value of the project area.

For example, the MND fails to fully analyze the importance of the project area to the VELB. Without this perspective, it is difficult to provide a meaningful evaluation of the impacts and the adequacy of mitigation. The MND reveals that the project will impact a large number of elderberry shrubs. However, it appears that the MND underestimated the number of elderberry shrubs that may be impacted by the proposed project. The United States Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) states that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. The USFWS Framework also states, *Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity.* The MND surveys for elderberry shrubs found a total of 501 elderberry shrubs within 165 feet of the project footprint. However, the MND reports that only some of the 501 elderberry shrubs surveyed would be impacted by the project. The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. An analysis should be provided about why elderberry shrubs that could be impacted would not be affected by the project.

The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

The USFWS Framework emphasizes the importance of keeping mitigation close to the site of impact. The MND indicates that mitigation for impacts to VELB will be accomplished by purchasing credits from an unspecified mitigation bank. However, the MND does not identify where credits would be purchased, therefore it is unclear whether mitigation would occur close to the site of impact. In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that need to be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if:

- 1) *the planting location is suitable for elderberry growth and reproduction; and*
- 2) *the City is able to protect the shrub and ensure that the shrub becomes reestablished.*

The MND does not provide any assessment of whether these criteria may be met in areas in close proximity of impacts and it is therefore not clear whether it will be possible to relocate shrubs nearby.

Finally, the MND does not adequately analyze the impacts to a riparian area. The project will result in the substantial degradation of the quality of the environment and the reduction of habitat of endangered species of plant or animal species. While the MND does review temporary impacts due to construction, a majority of the mitigation measures only address the temporary impacts. The one mitigation measure that does address permanent impacts does not provide a significant level of detail to allow the reader to determine in the proposed mitigation is adequate. Replanting may or may not return the project area to its original state. Off site credits may or may not be available. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

6. Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public

meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

Sincerely,

Tracy Keith
5325 Sandburg Drive
Sacramento, CA 95819

Attachments

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

November 29, 2018

Dear Mr. Buford;

I am a city of Sacramento resident. I live in River Park directly adjacent to the Two Rivers Trail project area and I visit the Two Rivers Trail project area every day. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

1. Aesthetics

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that severs the existing project area. The project area is currently in a relatively cohesive natural, undisturbed state, comprised of many large native trees, shrubs, vines, riverine soil, habitat mosaic and other natural features unique to a riparian area. The proposed project, a black asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail (Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail. The contrasting element that is a black asphalt line will alter the natural character of this otherwise intact environment. Unless I'm convinced otherwise, this impact, in my mind, is un-mitigatable. Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two Rivers Trail as a base line of comparison.

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Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

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Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. Water Quality/Storm Water Impacts

The American River is located in a High Risk Watershed (CA. State Water Board – High Receiving Water Risk Watershed GIS Method). The river is a candidate for consideration for placement on the list of impaired water bodies (303d), for TMDLs (Total Maximum Daily Load) – Decision ID 49714 - Final California 2014 and 2016 Integrated Report (303(d) List/305(b) Report). In reviewing the MND, I see no discussion regarding storm water runoff from impervious surfaces that will be created by paving an otherwise pervious surfaces. How will runoff be prevented from entering the river channel. Given it's candidacy for impairment, I would think this document needs to prove that this project will not further impair the water quality for TMDLs, hence adding more evidence for its candidacy.

In addition, a Storm Water Pollution Prevention Plan will need to be developed in order to secure the Construction General Permit for storm water. Has this been completed. If so, I'd like a copy of the permit.

4. Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail*. The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area. It should also analyze the potential cumulative impacts created by other user groups that will potentially visit and use the area.

The project area is currently a natural, relatively undisturbed riparian area that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

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Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility. These impacts will change the character of the area from a pleasant, passive recreation experience to one that is interrupted by a more active and less peaceful one. Passive recreation should be measured for impacts to it. Those impacts need to be taken into consideration to determine its significance to the area users.

5. Biology

The MND discusses both temporary and permanent impacts to riparian habitat, protected trees and threatened or endangered species. However, the analysis was not complete nor rigorous enough given the exceptional riparian habitat and historic environmental value of the project area.

For example, the MND fails to fully analyze the importance of the project area to the VELB. Without this perspective, it is difficult to provide a meaningful evaluation of the impacts and the adequacy of mitigation. The MND reveals that the project will impact a large number of elderberry shrubs. However, it appears that the MND underestimated the number of elderberry shrubs that may be impacted by the proposed project. The United States Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) states that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. The USFWS Framework also states, *Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity.* The MND surveys for elderberry shrubs found a total of 501 elderberry shrubs within 165 feet of the project footprint. However, the MND reports that only some of the 501 elderberry shrubs surveyed would be impacted by the project. The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. An analysis should be provided about why elderberry shrubs that could be impacted would not be affected by the project.

The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

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bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

7. Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Moffatt".

David Moffatt. LLA, QSD

5131 Teichert Ave.

Sacramento, CA 95819

Tom Buford

From: S O <buylowsellhigh@hotmail.com>
Sent: Thursday, November 29, 2018 2:45 PM
To: Tom Buford
Subject: Two Rivers Trail Phase II

Dear Mr. Buford;

My name is Sean and I have lived in River Park for about 30 out of my 35 years. I think one of the greatest parts of Sacramento is this beautiful natural area. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated. I feel most people are in agreement about global warming and would love to do our part by leaving this area alone. I understand the following is a templet, but as a father of soon to be two boys under 2 and a full time job, sometimes it is best not to try and reinvent the wheel.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

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The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

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The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

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6. Adequate Environmental Review and Response to Comments

My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

Sincerely,

Sean & Jeni O'Brien

5309 Sandburg Dr. Sacramento, CA 95819

Mr. Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

November 20, 2018

Dear Mr. Buford;

I am a city of Sacramento resident. I live in the Two Rivers Trail project area **and/or** I visit the Two Rivers Trail project area on a regular basis. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

1. Aesthetics

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that bulldozes through the existing project area. The project area is currently in a natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The proposed project, an asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail (Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail. Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two Rivers Trail as a base line of comparison.

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Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail.* The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

4. Biology

The MND discusses both temporary and permanent impacts to riparian habitat, protected trees and threatened or endangered species. However, the analysis was not complete nor rigorous enough given the exceptional riparian habitat and historic environmental value of the project area.

For example, the MND fails to fully analyze the importance of the project area to the VELB. Without this perspective, it is difficult to provide a meaningful evaluation of the impacts and the adequacy of mitigation. The MND reveals that the project will impact a large number of elderberry shrubs. However, it appears that the MND underestimated the number of elderberry shrubs that may be impacted by the proposed project. The United States Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) states that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. The USFWS Framework also states, *Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity.* The MND surveys for elderberry shrubs found a total of 501 elderberry shrubs within 165 feet of the project footprint. However, the MND reports that only some of the 501 elderberry shrubs surveyed would be impacted by the project. The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. An analysis should be provided about why elderberry shrubs that could be impacted would not be affected by the project.

The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

The USFWS Framework emphasizes the importance of keeping mitigation close to the site of impact. The MND indicates that mitigation for impacts to VELB will be accomplished by purchasing credits from an unspecified mitigation bank. However, the MND does not identify where credits would be purchased, therefore it is unclear whether mitigation would occur close to the site of impact. In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that need to be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if:

- 1) the planting location is suitable for elderberry growth and reproduction; and*
- 2) the City is able to protect the shrub and ensure that the shrub becomes reestablished.*

The MND does not provide any assessment of whether these criteria may be met in areas in close proximity of impacts and it is therefore not clear whether it will be possible to relocate shrubs nearby.

Finally, the MND does not adequately analyze the impacts to a riparian area. The project will result in the substantial degradation of the quality of the environment and the reduction of habitat of endangered species of plant or animal species. While the MND does review temporary impacts due to construction, a majority of the mitigation measures only address the temporary impacts. The one

mitigation measure that does address permanent impacts does not provide a significant level of detail to allow the reader to determine in the proposed mitigation is adequate. Replanting may or may not return the project area to its original state. Off site credits may or may not be available. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

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Thank you for your time and attention to these matters.

Sincerely,

Pamela Kennedy

November 29, 2018
5747 State Avenue
Sacramento, CA 95819

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

Subject: Public Comments on Two Rivers Trail Phase Two Initial Study/Mitigated Negative Declaration (IS/MND)

Dear Mr. Buford:

The subject IS/MND shows areas of permanent impacts (pages C-6 and C-7) and cut and fill limits (Figure 3, page 12). At the Fall RPNA meeting (October 6, 2018), the city provided an update on the project. The city's presentation included an alternative access design at Glen Hall Park. The original proposal would have constructed a paved ADA trail with switchbacks in the area behind the soccer/baseball field and possibly require removal of the row of conifer trees on the levee. The alternative design would be located behind the swimming pool, would require the removal of fewer trees at the south side of the levee, would have less visual impact and would cause less interference with athletic/recreational activity at the baseball /soccer field. The IS/MND does not show or discuss these two design alternatives.

While final designs would be prepared based on further geotechnical studies and in compliance with the USBC (page 67), deferring adequate description of a design feature (and its alternatives) such as the Glen Hall access that is an integral part of the trail project, is not in compliance with CEQA as it does not give the public an opportunity to comment knowledgeably, and as stated above, the two access alternatives and their potential impacts were not analyzed as discrete project features in the IS/MND.

Paving the lower trail would affect both the immediate viewshed and the natural experience it affords but also the more distant viewshed which would be more bare and stark as a result of the paved trail. Views from both the toe and top of the levee would be negatively affected by the project.

Large and mature trees along the existing trail afford shade, soften the view, and create a richer visual experience which would be negatively affected by the project. The values (visual, scenic, wildlife habitat) that these trees currently provide would not be attained by replacement trees for many years if not decades.

Other existing vegetation that grows densely along the trail softens and enhances the visual and natural experience and provides cover for wildlife. The existing established vegetation would be difficult to recreate. Its density helps to suppress weeds such as star thistle which could get a foothold as a result of ground disturbance by the project. Star thistle requires constant vigilance and is a visual and ecological blight that overwhelms native grasses and other vegetation.

Trail operation and maintenance (page 17) discuss steps the city would take to prevent spread of invasive plant species, but these measures are not included in Mitigation Measure 3-5 which does not address the disturbance that can lead to the spread of star thistle. Star thistle is common next to the paved trail on the north side of the river, so it appears that the maintenance measures the document proposes would not be adequate.

Mitigation Measure 3-6 says "the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio." Mitigation Measure 3-6 should require the City to replace riparian trees and shrubs on-site to reduce impacts to wildlife habitat, and aesthetic and recreational resources and that the purchase of off-site mitigation credits at a CDFG-approved mitigation site be considered as an additional mitigation rather than an option.

Mitigation Measure 3-6 says "No long-term management of landscaping or watering beyond that needed to initially establish the plants is anticipated to occur." The mitigation measure provides a maximum of six years to meet success criteria for riparian plantings. Considering the types of replacement vegetation, are two 3-year periods adequate and is CDFG in agreement. Will the planting plan (pg. 46) be approved by CDFG.

The environmental document has not provided substantial evidence that the proposed project would not result in adverse visual impacts. The environmental document should include visual simulations to accurately illustrate the potential impacts of the proposed project.

Thank you for considering my comments.

Sincerely,


Nancy MacKenzie

Tom Buford

From: Stuart Reeves <cofyco@hotmail.com>
Sent: Friday, November 30, 2018 9:44 PM
To: Tom Buford

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Dear Mr. Buford:

I am a city of Sacramento resident. I live in the Two Rivers Trail project area and I visit the Two Rivers Trail project area on a regular basis. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated. Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

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Thank you for your consideration in these matters.

Stuart Reeves

Two Rivers Trail Phase II – Public Comment

Name: Horacio Porath

Mailing Address: 5325 Sandburg Drive, Sacramento, CA 95819

e-mail: horacioqporath@yahoo.com

Comment: One of my main concerns about paving this section of the trail is the increased traffic by cyclist who do smoke cigarettes while riding bicycles. I use both the paved and unpaved sections of the trail daily. I run 8 to 10 miles per day along the parkway. I often see people riding their bikes while smoking, sounds absurd but it's true. Most fires I have seen are in close proximity of the paved trails. The rest are near the water caused by campfires. Bicycles don't have ashtrays and smokers are pigs! They don't put out their butts or carry them away! Many houses along this narrow section of the parkway would be in extreme peril when a fire does occur. I rarely see a smoker on an unpaved trail, but definitely more on a smooth paved trail.

Please do not pave the trail!

Two Rivers Trail Phase II – Public Comment

Name: Horacio Porath

Mailing Address: 5325 Sandburg Drive, Sacramento, CA 95819

e-mail: horacioqporath@yahoo.com

Comment: One of my main concerns is the safety to pedestrian trail users when bicycles on paved trails speed by. It's simply not safe to have bicycles riding by in close proximity to others who move much slower. Many people use the trail system for walking, jogging, inline skating and even pushing strollers or wheelchairs. I have been directly impacted by cyclists along the paved areas of the trail. When I skate I have no option but to stay on the pavement and cyclists have threatened me with abusive verbal foul language and even physical violence both by myself and in the presence of my young children. I have reported these events but little can be done since the culprits don't stop and identify themselves. The purpose of these threats and abuse is clearly to intimidate slower users of the paved trail. Many parents I know personally have expressed similar experiences including dangerously close calls and fears for the safety of their children and will not ride the paved areas of the trail system.

I strongly recommend using a non-pavement surface such as compacted gravel, decomposed granite or other alternative, so the speed of "road bikes" is naturally reduced. My other recommendation would be to prohibit bicycles along the trail while still allowing for disabled people to use an improved trail along this very narrow section of the parkway. Many state and national parks have ADA compliant trails that are not paved. I use this parkway every day of the year, I have cycled, run, skated the trail since 1985 and I have been on all of the trails. Please spare this very small section of the trail system where pedestrians can feel safe walking with their children and dogs to enjoy nature.

November 30, 2018

Mr. Tom Buford, Principal Planner

Community Development Department

City of Sacramento

300 Richards Boulevard

Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

Dear Mr. Buford:

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. As a thirty-plus year resident of the River Park neighborhood, I have been fortunate to have access to one of the most unique environments in Sacramento—the dirt trail at the base of the American River Levee. I represent a variety of interests: I am a walker, a bicyclist, and a neighborhood activist. I helped start and continue to serve on the local Neighborwoods Project, the River Park Tree Canopy Project, which has planted over 125 trees in River Park since 2015. I am a member of the Advisory Group for the City of Sacramento's Urban Forest Master Plan Update project. I've served on a River Park traffic management committee for the City, which made recommendations on stop signs and speed bumps, among other measures. My son graduated from Caleb Greenwood; I served on the committee that recommended its transition to an International Baccalaureate program. I also serve as Vice President of Save Don't Pave, the community group which is working to preserve the toe trail in its wild state. My comments are based on my belief that walking, biking and otherwise exploring the levee toe trail is an invigorating, exceptional, enjoyable experience, and to pave it would be to lose this experience forever. There will be no going back.

At the very least, the City needs to complete a full EIR on this project. The following issues should be included:

- 1) There is a viable, already-completed, no-project alternative that the City has already spent well over a million dollars on: Guy West Bridge, CSUS side levee, Carlson Drive intersection, H Street to Elvas Avenue, to C Street to downtown. All done, very direct and bicycle-friendly. Just another alternative to the already-existing Jedediah Smith Trail right across the American River, that goes from the City of Folsom to Discovery Park. Of course, the Jedediah Smith trail is reachable by 3 bicycle-friendly bridges right near the project.
- 2) Flood Danger: The MND includes the question whether the project substantially increases the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood. MND p. 74
 - a) Will this project potentially endanger the population of River Park and, indeed, the entire City, from flooding? We are told that flood experts have signed off on the Incising Plan (including the American River Flood Control Board). However, the idea of a mid-bench trail has not been tested in the American River Flood Control area. The idea of a mid-bench trail was developed

after the ARPP update and the TRT Concept Plan. The Concept Plan Report “discussed the development of a paved trail along the top of the American River south levee.” “A mid-height bench alignment along the waterside levee slope of the entire length of the proposed trail segments was more recently considered in an attempt to minimize habitat impacts along the waterside toe of the levee and address concerns raised by residents of the River Park neighborhood. However, because the U.S. Army Corps of Engineers (USACE) considered placement of the trail on a mid-height bench on the waterside levee slope to be a risk to levee performance and would potentially increase the cost of levee operations and maintenance costs (emphasis added); the mid-levee alignment was determined to be infeasible where adequate space along the levee toe to accommodate the trail was present (James, Pers. Comm. 2018). (MND, p. 5)

One can ask: if a mid-height bench on the waterside of the levee slope is a risk to levee performance, according to the U.S. Army Corps, then why is it being proposed for a recreational trail? Does a recreational trail (that is duplicated nearby) merit the use of an expensive, untested, potentially unsafe levee treatment?

- b) “The project areas mapped as Zone AE [Segments 3-6] are designated as a Regulatory Floodway and are within the 100-year floodplain for the American River.” MND, page 73. What this means is the City is spending \$6.4 million to build a recreational bike trail in the floodplain of the American River. Question: how many times per decade will substantial portions of the trail be under water? Does the MND address this issue in terms of use, and maintenance costs? In fact, are any of the City’s substantial continuing maintenance costs included in the MND? I was not able to locate them.
- c) The Lower American River Task Force (Task Force) focuses on flood, environmental and recreational management issues affecting the lower reach of the American River from Folsom Dam to the Sacramento River. In 2002, Task Force participants cooperated in preparing the Lower American River Corridor Management Plan (RCMP) to provide a framework for integrated management of this reach of the river. The Bank Protection Working Group of the Lower American River Task Force has tentatively identified four segments of the south bank of the American River between Glenn Hall Park and H Street Bridge as “Tier 1”: “need to fix now – immediate threat of failure with 160K cfs flows.” How will the proposed incising into the river side of the levee be affected by such a failure? What additional costs will accrue to the City to repair a trail subject to periodic flooding?
- d) Levee safety and soil: “Past performance issues documented in the DWR ULE Supplemental Geotechnical Data Report (SGDR) for the American River study area (URS 2010) were reviewed to evaluate past performance of Segments 4 and 6 and to determine whether any prior levee instabilities had occurred within Segments 4 and 6. Available past performance records indicated a single past performance issue consisting of waterside erosion of the riverbank below the levee toe in Segment 4 (approximately Sta. 114+80 to Sta. 130+80 of the present project or DWR Sta. 1206+30 to Sta. 1222+30)” MND p. 67 Is this the “washout” event that destroyed the levee toe in Segment 4 in the 1986 flood? ... “Because the design, construction, and maintenance of levee improvements must comply with the regulatory standards of USACE and CVFPB, it is assumed that the design and construction of all levee modifications to accommodate placement of the trail would meet or exceed applicable design standards for static and dynamic stability, seismic ground shaking, liquefaction, subsidence, and seepage” MND p. 67. This is simply a statement of faith in the Federal standards, applied without regard to additional costs. The City needs to develop an estimate of costs associated with complying with federal standards, and explain how those costs will be covered in future, in order to meet CEQA standards.

- e) The United States Army Corps of Engineers has a new Section 408 policy document. The Section 408 permit is required in order for any levee change to be approved. (USACE New Draft Section 408 Policy Document EC 11650-2-220). So many engineering questions about the project, especially the plan to incise the Segment 4 section of the trail into the levee -- are resolved by saying that the USACE will have to approve the plan. How much additional expenditure – beyond the \$6.4 million already budgeted – may be required to meet the federal standards? There is no discussion of how much additional funding may be required. How many change orders will the Council need to approve in order to finish this trail to USACE standards?
- 3) Compliance with the American River Parkway Plan (ARPP)
- a) In the Sacramento County Compliance Review of the Project (November 15, 2018) the following statement was listed as an element of the ARPP:

“10.141 Maintain a suitable level of habitat connectivity between the Woodlake and Discovery Park East areas to provide a wildlife corridor. Key areas include the riparian corridor along the low flow channel and the area generally north of Northgate Boulevard.” Note that the proposed project could very easily damage habitat connectivity between the Paradise Beach segment and the Sutter’s Landing Park segment.
 - b) The ARPP says any features in the Paradise Beach segment should not attract groups of users. It’s fatuous to attempt to suggest that a multi-user paved trail designed to increase access to the area is “not attracting groups of users.” Certainly the trail would be used by “small group[s...] defined as any organized group of eleven to twenty persons; whether assembled for competitive or noncompetitive purposes.”
 - c) The Paradise Beach segment of the American River Parkway is considered a “Protected Area.” The Land Use section of the ARPP (p 117) says “facilities and other improvements are limited to those which are needed for the public enjoyment of the natural environment.” As TRT Phase II is designed as a through route, isn’t that inconsistent with this provision?
 - d) Consistency issue: The ARFCD Recreational Trails Policy was adopted in 2002 (per Tim Kerr letter, 11/9/2018), discouraging use of top of levee for recreational trail. Yet, the ARPP update (2008) included the following regarding the Two Rivers Trail segment between Sutter’s Landing and the H Street Bridge: “Support construction of a Two Rivers Trail extension to H Street that will provide direct connectivity from California State University Sacramento to downtown Sacramento. The trail should be constructed on top of the levee where feasible” P. 38.
 - e) Is it appropriate to base the trail approval on the American River Parkway Plan and the City’s General Plan CEQA when both documents assumed the trail on top of levee where feasible?
 - f) Note that ARPP said no building in area because of unstable soil. See comments on soil stability issues.
- 4) Consistency Issue between project as proposed and the Sacramento Bicycle Master Plan (2018) -- Equity:

The City Bicycle Master Plan (which does include this trail) calls for increased equity in funding bicycle projects by 2020 as one of the four goals of the Plan (BMP p.2) The Key Findings of this

Plan describes East Sacramento as “Less disadvantaged.” In fact, it is one of the “greenest” (i.e., least disadvantaged) areas in the City (BMP Equity Analysis Map, BMP p. 32). Yet, this \$6.4 million project, which duplicates a world-class bicycle trail across the river, and for which an on-road alternative already exists that has been recently built at over \$1 million (see alternatives analysis), is using limited active transportation funds and extensive support from City Staff, while other neighborhoods who don’t have the City’s active support get the message to do their project on their own (Morrison Creek Project).

Why would this trail be included in the Master Plan in contradiction to the Plan’s stated goals? According to testimony by Jim Brown, of SABA, at the October 18, 2018, meeting of the Sacramento Active Transportation Advisory Committee, many of “projects in the [Bicycle Master] Plan [have been in the Plan] for years and years” (Sacramento Active Transportation Commission video, Time register approximately 42 minutes). Brown further avers that the list of projects was not amended to meet the newer goals (including equity) because the City Attorney told staff that any change of projects would trigger an EIR. Brown stated that there is a categorical exemption for bicycle plans, and that Sacramento spent an inadequate amount of money on the Plan update.

- 5) Loss of Trees: The project will bring about the loss of at least 22 trees – some of them major shade canopy trees, all of them providing critical habitat for this rare riparian landscape. This MND does not inventory the trees. Further, its analysis is based on an outdated version of City Code. And the County ownership of this property raises the question: which set of tree protections should prevail – City or County? Finally the mitigation plan is not spelled out. The loss of any trees along this path will turn it from a verdant country experience – “the last wild space” – into a typical urban experience. The City needs to be cautious about accepting this MND document from the consultants – *given the ineptitude of this analysis of the tree situation*, are there other areas of this document based on outdated statutes or regulations, and using faulty understanding of the complex relationships between the many governmental entities involved in design, approval, construction, and operation of the project?
- 6) Caltrans Capital City Corridor: Caltrans is planning a major series of projects including widening the American River Bridge crossing of Business 80. This bridge goes over the proposed project. One possible alignment would move the bridge entirely. The widening, even if in the same footprint, would likely entail additional or moved supports. This can easily have an effect on the trail as it passes under Business 80. This is a reason to delay this project to avoid having to re-engineer the trail when the bridge is altered. Here’s the link to the website: Website:

<http://www.dot.ca.gov/d3/capcitycorridor/subprojects/0H931/index.html>

- 7) Cultural Resources

“Built Environment Resources Levee Unit 118 Part 1 (American River South Levee) is considered significant under National Register of Historic Places Criterion A within the context of flood management and for its association with the SRFCP... Levee Unit 118 Part 1 is also considered to be a historical resource for the purposes of CEQA. As designed, the proposed project’s bike trail would be located primarily along the toe of the levee, with a portion of Segments 1 and 2 along the levee crown, and Segment 4 along the waterside levee slope. The proposed project would not alter the character-defining features of the levee (i.e. its compacted earth, slope, and crown).”

Let’s look at how the “character-defining features” of the levee might be altered by the project:

“Segment 4 is ... approximately 0.25 miles long... There is no defined bench on the water side of the levee in this segment. Consequently, to both avoid the potential for trail users to interfere with vehicles using the patrol road on the levee crown to perform levee maintenance and inspection activities, and limit the ability of trail users to see into the yards of residences located directly adjacent to the land side of the levee, this trail segment would be constructed on the water side slope on an artificial bench offset from the top of the levee with a reduced path width to limit impacts. The trail segment would also include a small retaining wall (emphasis added) along the inner edge of the trail to maintain the width of the levee crown for levee maintenance and patrol vehicle use”. MND p. 9-10

This means that for a distance of 1320 feet, there will be an incised trail and a retaining wall on the waterside of the levee. That seems to be a character-altering feature.

Of course, the City Council can easily decide that this project is simply not worth the money, the loss of habitat, the flood dangers, and the loss of this precious “last wild space.” I heartily endorse that plan and I urge the Council to direct these limited bicycle funds, and City resources, to neighborhoods where they are truly needed.

Thanks for your attention to this letter.

Kate Riley
5601 Monalee Avenue
Sacramento, CA 95819

Tom Buford

From: Alex Burt <alexrburt@gmail.com>
Sent: Friday, November 30, 2018 2:19 PM
To: Tom Buford
Subject: Two Rivers Trail Project

Mr. Buford, Principal Planner

Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

November 30, 2018

Dear Mr. Buford;

I am a city of Sacramento resident. I live in the Two Rivers Trail project area **and/or** I visit the Two Rivers Trail project area on a regular basis. I am interested in the environmental review of this project, because I want to make sure the impacts are properly identified, assessed, and mitigated.

Please accept these comments on the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project. My comments on resource areas discussed in the MND are as follows:

1. Aesthetics

The aesthetics of the proposed project is a key area of concern. While most people think a bike path is an almost invisible asset to the community, the fact is, the proposed project is a 14 to 22-foot paved path that bulldozes through the existing project area. The project area is currently in a natural, undisturbed state, including native trees, native bushes, sand, dirt, brush, habitat and other natural features unique to a riparian area. The proposed project, an asphalt and decomposed granite path that varies from 14 to 22 feet across, will impact a large swath of this riparian area in order to allow for construction of the trail, construction of permanent overhead structures, trail access for security and firefighting purposes, and on-going maintenance trucks and equipment. Comparing similar segments of the Two Rivers Trail (Phase I) shows the stark aesthetics that are necessary to construct and maintain a Class 1 bicycle and pedestrian trail. Therefore, I disagree with the analysis starting on page 21 of the MND related to whether or not the project substantially degrades the existing visual character of the site or its surroundings. The project will substantially interfere with an important scenic resource and substantially degrade the view of this existing scenic resource. This environmental impact has not been adequately analyzed. There needs to be an Environmental Impact Review to look at what the before and after aesthetics of the project will be, using existing, comparable trails and the recently constructed Phase I of the Two Rivers Trail as a base line of comparison.

2. Geology and Soils

Phase I of the Two River's Trail project encountered geotechnical issues which led to change orders costing hundreds of thousands of dollars. Per a January 9, 2007 City of Sacramento staff report to City Council:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

Given the city's knowledge and experience with a very similar project in close proximity to the proposed project, a geotechnical report should be prepared as part of the overall environmental analysis in order to adequately evaluate impacts. Once again this calls for an Environmental Impact Review. Mitigation Measure 6-1 defers mitigation by delaying the preparation of a final geotechnical investigation of the project, until after project approval. Extra costs and delays due to unexpected conditions and necessary re-engineering and approval could add to the already high cost of the project.

3. Recreation

Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail.* The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

The project area is currently a natural, undisturbed riparian area, that offers users the opportunity to interact with wild life, natural vegetation, sand, dirt and brush. The construction of a 14 to 22-foot trail across and through the middle of the project area will accelerate the physical deterioration of an existing recreational facility. Current users visit the project area because of the natural, riparian texture. Sand and dirt crunching underfoot, native birds singing and flying through native brush, beetles running across dirt paths, native landscaping changing colors, and bushes flowering and developing berries are all integral elements of this recreation facility. The project will impact recreation due to the construction and maintenance that will continue to physically deteriorate this natural facility. For example, page 39 of the MND states:

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

4. Biology

The MND discusses both temporary and permanent impacts to riparian habitat, protected trees and threatened or endangered species. However, the analysis was not complete nor rigorous enough given the exceptional riparian habitat and historic environmental value of the project area.

For example, the MND fails to fully analyze the importance of the project area to the VELB. Without this perspective, it is difficult to provide a meaningful evaluation of the impacts and the adequacy of mitigation. The MND reveals that the project will impact a large number of elderberry shrubs. However, it appears that the MND underestimated the number of elderberry shrubs that may be

impacted by the proposed project. The United States Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017) states that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. The USFWS Framework also states, *Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity.* The MND surveys for elderberry shrubs found a total of 501 elderberry shrubs within 165 feet of the project footprint. However, the MND reports that only some of the 501 elderberry shrubs surveyed would be impacted by the project. The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. An analysis should be provided about why elderberry shrubs that could be impacted would not be affected by the project.

The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

The USFWS Framework emphasizes the importance of keeping mitigation close to the site of impact. The MND indicates that mitigation for impacts to VELB will be accomplished by purchasing credits from an unspecified mitigation bank. However, the MND does not identify where credits would be purchased, therefore it is unclear whether mitigation would occur close to the site of impact. In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that need to be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if:

- 1) *the planting location is suitable for elderberry growth and reproduction; and*
- 2) *the City is able to protect the shrub and ensure that the shrub becomes reestablished.*

The MND does not provide any assessment of whether these criteria may be met in areas in close proximity of impacts and it is therefore not clear whether it will be possible to relocate shrubs nearby.

Finally, the MND does not adequately analyze the impacts to a riparian area. The project will result in the substantial degradation of the quality of the environment and the reduction of habitat of endangered species of plant or animal species. While the MND does review temporary impacts due to construction, a majority of the mitigation measures only address the temporary impacts. The one mitigation measure that does address permanent impacts does not provide a significant level of detail to allow the reader to determine if the proposed mitigation is adequate. Replanting may or may not return the project area to its original state. Off site credits may or may not be available. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City,*

North Sacramento, East Sacramento, and Richards Boulevard area, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

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My final concern is related to the level of environmental review being completed. While I appreciate the city's effort to complete an Initial Study/Mitigated Negative Declaration, given the level of controversy surrounding this project, I would like to request a full Environmental Impact Report (EIR) be completed. The community needs to review a more robust and complete analysis of the project. In addition, an Environmental Impact Report allows for a longer circulation and comment period. Also, an EIR will likely include a public meeting, and ideally that public meeting will include discussions with decision makers so that the community concerns and voices can be heard. While the city held a community meeting related to the MND, the meeting did not include a question and answer period with the single decision maker who attended the meeting, and it did not allow for a robust and public discussion regarding the issues. In the interest of transparency, an EIR allows for more rigorous analysis, discussion and transparency of the thought-process of decision makers.

Thank you for your time and attention to these matters.

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Sidney and Alex Burt

Sent from my iPhone

Tom Buford

From: Sidney Scheideman <sidneymorgan421@gmail.com>
Sent: Friday, November 30, 2018 2:13 PM
To: Tom Buford
Subject: Two Rivers Trail Project

Mr. Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

November 30, 2018

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Via email: tbuford@cityofsacramento.org

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Recreation is also a key area of concern. The proposed project introduces a number of new users to the project area, which, while a noble cause, may cause significant impacts. The MND states that the project will not cause significant environmental effects causing or accelerating substantial physical deterioration of existing area parks or recreational facilities. Page 86 of the MND states, *the project would expand recreational opportunities at the project site by offering a paved multi-use trail.* The project may expand recreational opportunities, specifically for cyclists, in the project area, but the analysis should be on whether or not the project will cause significant environmental effects by accelerating the substantial physical deterioration of the project area.

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Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat.

Page 39 also states, *(The project) would result in the permanent removal of approximately 0.95 acres of VELB (Valley Elderberry Longhorn Beetle), riparian, and mixed scrub habitat.* In order to construct and maintain a 14 to 22-foot trail, much of the natural elements that are the defining characteristics of this existing recreational facility will be significantly impacted. The MND does not adequately address the physical deterioration of this recreational facility or the specific elements that make it so unique as a natural recreational facility.

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The MND also likely underestimates the impacts to VELB for segments 1 and 2 of the project. Because there is currently no funding for these segments and because a preferred alignment has not yet been determined, it will likely be a number of years before these segments will be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is impossible to estimate VELB impacts for segment 1 and 2.

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mitigation measure that does address permanent impacts does not provide a significant level of detail to allow the reader to determine in the proposed mitigation is adequate. Replanting may or may not return the project area to its original state. Off site credits may or may not be available. More detail and analysis is needed in order to determine the adequacy of the proposed mitigation.

5. Transportation

On page 90 of the document, the MND states that project will not permanently adversely affect pedestrian travel, pedestrian paths or fail to provide for access by pedestrians. This analysis is not adequate as it completely ignores the potential conflicts between current users and users introduced by the project. The existing project area allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths. The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the project area is a haven for pedestrians seeking a more natural walking experience. The MND discusses temporary impacts to pedestrians and determines these impacts to be less than significant. However, the permanent impacts are not analyzed. Given the project objective to *Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area*, the MND inadequately analyzes the potential impact between the introduction of numerous commuters on bikes to the existing pedestrian environment. Frankly, this is one of the greatest concerns regarding the project. The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete.

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Thank you for your time and attention to these matters.

Sincerely,

Robert Scheideman

Tom Buford

From: Eve Martinez <bkemart@yahoo.com>
Sent: Friday, November 30, 2018 6:47 AM
To: Tom Buford
Cc: Save Don't Pave
Subject: Mitigated Negative Declaration for Phase II of Two Rivers Trail Project

Mr. Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

Via email: tbuford@cityofsacramento.org

November 30, 2018

Dear Mr. Buford;

I am a city of Sacramento resident, live in the Two Rivers Trail project area, and I utilize the Two Rivers Trail project area for recreational purposes on a regular basis. In light of the findings of the Mitigated Negative Declaration (MND) being circulated for Phase II of the Two Rivers Trail project, I support further environmental review of the project; it is imperative that the impacts of the proposed project be properly identified, assessed, and mitigated.

My comments on resource areas discussed in the MND are as follows:

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Thank you for your time and attention to these matters.

Sincerely,

Eve Martinez
5620 Sandburg Dr.
Sacramento, CA 95819

Eve Martinez
bkemart@yahoo.com
916.730.5995

Tom Buford

From: Sheri Opp <zzvovii@aol.com>
Sent: Thursday, November 29, 2018 11:19 PM
To: Tom Buford
Subject: Two River Trails Project

November 28, 2018

Dear Mr. Buford;

I am a city of Sacramento resident. I live in River Park on Sandburg Drive. I visit the area where the trail is proposed on a daily basis. I am a runner. I am extremely interested in the environmental review of this project. I feel a paved trail will irreversibly change the landscape that I know and love. I can not imagine a slab of pavement replacing the beauty of nature that is already there. When I run down toward Sutter's Landing, the area that is already paved, I choose to take the river trail instead of running on the pavement. The pavement and the barren vegetation next to it is so depressing and ugly. Living in a city, it is so important to have completely natural areas to escape to. I just do not understand the City's thought that pavement has to equal connectivity. Why can't the City have paved and unpaved sections? The trail in its natural state is already enjoyed by bikers. Paving that area will be a huge step backwards for Sacramento. That area will never be the same. It will never be a peaceful area again. **Please allow a full environmental impact report to be done.**

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Stuart Reeves DPM
5315 Sandburg Drive
Sacramento, Ca 95819

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Send Message (Ctrl + return)

COMMUNITY DEVELOPMENT
DEPARTMENT

4551 Moddison Ave
Sacramento, CA 95819

RECEIVED

Near Mr. Buford,

As a resident of River Park 2 after the presentation of the Two Rivers Trail Project at Calde School, I am concerned about the integrity of the levee, especially where the project cuts away a piece of the levee to continue the trail. This area of the levee has washed out repeatedly during high flood waters. Consequently there is no room to build a trail & obviously this is a vulnerable spot along the river.

While at the meeting I overheard one of the project's team members state that the cutaway is fine, because this levee is 3' higher than the average federal levee. The sturdy wall was added for the safety of Sacramento residents, not to justify a trail.

- 2 -

The assessment of risks on this project is critical. An error in judgment such as minimizing or disregarding the integrity of the levee could be devastating to the city & state of California. I'd be interested in the study that discusses the risks of the project & especially the risk associated with cutting away of the levee & the building of a support wall. I am also interested in who performed the study & the details supporting the decision for the cutaway.

Sincerely yours,

Jane Hunter

janeh2561@gmail.com

A.2 Initial Study/Mitigated Negative Declaration

Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration



Prepared for:

City of
SACRAMENTO

October 2018

Prepared by:



Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration

K15125000

Prepared for:

City of Sacramento
Department of Public Works
New City Hall
915 I Street, Room 2000
Sacramento CA 95814

Contact:

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Project No. 1610789

TABLE OF CONTENTS

Abbreviations and Acronyms	iii
Proposed Mitigated Negative Declaration	I
Initial Study	1
Section I - Background	3
Section II - Project Description	5
Background and Project Location.....	5
Project Objectives	9
Proposed Project	9
Project Permits and Approvals	18
Section III – Environmental Checklist and Discussion	19
Land Use, Population and Housing, Agricultural Resources, and Mineral Resources	19
Aesthetics	21
Air Quality	23
Biological Resources	31
Cultural Resources	53
Geology and Soils.....	64
Hazards	69
Hydrology and Water Quality.....	73
Noise.....	77
Public Services.....	81
Recreation	85
Transportation and Circulation.....	87
Tribal Cultural Resources.....	91
Utilities and Service Systems.....	96
Mandatory Findings of Significance	100
Section IV - Environmental Factors Potentially Affected.....	103
Section V - Determination	104
References Cited.....	105

Tables

Table 1.	Estimates of Excavation and Import Fill for the Project	15
Table 2.	Proposed Construction Equipment	16
Table 3.	Sacramento County Attainment Status.....	24
Table 4.	Summary of Air Quality Monitoring Data (2015-2017).....	25
Table 5.	Unmitigated Project Construction Emissions (Maximum) Pound Per Day	28
Table 6.	Habitat Community Types.....	32
Table 7.	Summary of Elderberry Shrub Impacts.....	40
Table 8.	Direct Impacts to Valley Elderberry Longhorn Beetle Habitat	40
Table 9.	Potential Valley Elderberry Longhorn Beetle Habitat-level Compensation Ratios	48
Table 10.	Valley Elderberry Longhorn Beetle Shrub-level Impact Ratios.....	49
Table 11.	Soils within the Project Area	65
Table 12.	Regional Active and Potentially Active Faults.....	66
Table 13.	Construction Equipment and Typical Equipment Noise Levels	79
Table 14.	Vibration Source Levels for Construction Equipment	80
Table 15.	Native American Contact Efforts.....	92

Figures

Figure 1.	Project Location Map	7
Figure 2.	Proposed Trail Alignment – Western Segments.....	11
Figure 3.	Proposed Trail Alignment – Eastern Segments.....	12
Figure 4.	Typical Levee Cross Sections.....	13
Figure 5.	Typical Railroad Undercrossing Cross Section	14

Appendices

- APPENDIX A. Representative Photos
- APPENDIX B. Air Quality Modeling Assumptions and Results
- APPENDIX C. Habitat Maps (Segments 3 through 6)
- APPENDIX D. Phase I Environmental Site Assessment (*Included on CD at back of report.*)

ABBREVIATIONS AND ACRONYMS

ADA	Americans with Disabilities Act
ARFCD	American River Flood Control District
ARPP	American River Parkway Plan
BACT	Best Available Control Technology
BMPs	Best Management Practices
BSA	Biological Study Area
Buena Vista	Buena Vista Rancheria of Me-Wuk Indians
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish & Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
City	City of Sacramento
CNDDB	CDFW Natural Diversity Database
CNPS	California Native Plant Society's
CO	carbon monoxide
CPRR	Central Pacific Railroad
CSUS	California State University at Sacramento
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
DWR	Department of Water Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
GPS	global positioning system
HSC	Health and Safety Code
IPAC	Information, Planning, and Conservation System
ITE	Institute of Transportation Engineers
LOS	level of service
MLD	Most Likely Descendant
MRZ-2	
NAHC	Native American Heritage Commission
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
OHWM	ordinary high water mark

Parkway	American River Parkway
PCBs	polychlorinated biphenyls
PG&E	Pacific Gas & Electric Company
PM	particulate matter
PRC	Public Resources Code
ROG	reactive organic gases
SASD	Sacramento Area Sewer District
Shingle Springs	Shingle Springs Band of Miwok Indians
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SR	State Route
SRCSD	Sacramento Regional County Sanitation District
SRFCP	Sacramento River Flood Control Project
SRWTP	Sacramento Regional Wastewater Treatment Plant
SVAB	Sacramento Valley Air Basin
SWA	Solid Waste Authority
SWPPP	Storm Water Pollution Prevention Plan
TAC	toxic air contaminants
U.S. EPA	United States Environmental Protection Agency
UAIC	United Auburn Indian Community of the Auburn Rancheria
UBC	Uniform Building Code
ULDC	Urban Levee Design Criteria
ULE	Urban Levee Evaluation
UPRR	Union Pacific Rail Road
USACE	U.S. Army Corps of Engineers
UWMP	Urban Water Management Plan
V/C ratio	volume to capacity ratio
VELB	valley elderberry longhorn beetles
WEAP	cultural resources and tribal cultural resources sensitivity and awareness training program
Wilton	Wilton Rancheria
WPCP	Water Pollution Control Plan
WTP	water treatment plants

PROPOSED MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this proposed Mitigated Negative Declaration for the following described project:

Two Rivers Trail (Phase II) [CML-5002(155)] - The proposed project would create 3.4 miles of new Class 1 bicycle and pedestrian trail primarily along the waterside levee toe west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge. The proposed multi-use trail would meet California Department of Transportation (Caltrans) Class 1 bikeway design criteria, would be compliant with the Americans with Disabilities Act, and would also be based on the State Water Code Title 23 standards for recreation trails on levees and the American River Flood Control District (ARFCD) Recreational Trails Policy (ARFCD 2002). The trail would generally consist of an 8-foot-wide paved path with a 2-foot-wide compacted shoulder on the inner side and a similar 4- to 6-foot-wide shoulder on the waterside.

Where the trail would cross under active railway lines, fencing may be constructed to prevent trail users from accessing the Union Pacific Rail Road (UPRR) right-of-way, and protective covers may be installed to protect trail users from falling debris. The protective covers would likely consist of a free-standing canopy supported on a cantilever structure that would extend up to 30 feet out perpendicular to each side of the railroad structure with 3 feet of clearance below the railroad structure to allow for UPRR access and inspection.


Access to the Phase II portion of the Two Rivers Trail would be provided at the intersection with the Sacramento Northern Bikeway Trail and North 18th Street, at 28th Street near the entrance to Sutter's Landing Regional Park, at Glenn Hall Park, and at the H Street Bridge.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, with mitigation measures as identified in the attached Initial Study, will have a significant effect on the environment. This proposed Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required.

This proposed Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892), and the Sacramento City Code.

A copy of this document and all supportive documentation may be reviewed or obtained at the City of Sacramento, Community Development Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 from 9:00 a.m. to 4:00 p.m.

Environmental Services Manager, City of
Sacramento, California, a Charter City and Municipal
Corporation

By: 

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TWO RIVERS TRAIL (PHASE II) [CML-5002(155)]

INITIAL STUDY

This Initial Study has been prepared for the Two Rivers Trail (Phase II) Project by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15000 *et seq.* of the California Code of Regulations) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

Organization of the Initial Study

This Initial Study is organized into the following sections:

SECTION I - BACKGROUND: Provides summary background information about the project name, location, sponsor, and the date this Initial Study was completed.

SECTION II - PROJECT DESCRIPTION: Includes a detailed description of the proposed project.

SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION: Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2035 General Plan.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: Identifies which environmental factors were determined to have additional significant environmental effects.

SECTION V - DETERMINATION: States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

REFERENCES CITED: Identifies source materials that have been consulted in the preparation of the Initial Study.

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SECTION I - BACKGROUND

Project Name and File Number: Two Rivers Trail (Phase II), (K15125000)

Project Location: Along the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge.

Project Applicant: City of Sacramento

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Sacramento, CA 95811
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Date Initial Study Completed: October 23, 2018

This Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 1500 *et seq.*). The Lead Agency is the City of Sacramento.

The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master Environmental Impact Report (EIR) and is consistent with the land use designation and the permissible densities and intensities of use for the project site as set forth in the 2035 General Plan. See CEQA Guidelines Section 15176 (b) and (d).

The City has prepared the attached Initial Study to review the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the 2035 General Plan Master EIR to determine their adequacy for the project (see CEQA Guidelines Section 15178(b),(c)) and identify any potential new or additional project-specific significant environmental effects that were not analyzed in the Master EIR and any mitigation measures or alternatives that may avoid or mitigate the identified effects to a level of insignificance, if any.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)) Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. See also the Master EIR for the 2035 General Plan. The mitigation monitoring plan for the 2035 General Plan, which provides references to applicable general plan policies that reduce the environmental effects of development that may occur consistent with the general plan, is included in the adopting resolution for the Master EIR. See City Council Resolution No. 2015-0060, beginning on page 60. The resolution is available at:

<http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx>.

This analysis incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for public review at the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, and on the City's web site at:

<http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx>

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Written comments should be sent at the earliest possible date, but no later than 4:00 p.m. on November 30, 2018.

Please send written responses to:

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard, Third Floor
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SECTION II - PROJECT DESCRIPTION

This chapter describes the proposed Two Rivers Trail Phase II Project (proposed project). The project background and location are described along with project objectives, project characteristics, construction activities, project maintenance, and discretionary actions and approvals that may be required.

BACKGROUND AND PROJECT LOCATION

Two Rivers Trail is a planned Class 1 bicycle and pedestrian trail along the south bank of the American River that extends from Tiscornia Park at Jibboom Street to the H Street Bridge in Sacramento, California (**Figure 1**). Phase I of this trail includes the segment from Tiscornia Park to the intersection of North 12th Street and State Route (SR) 160. Phase II includes the section from the Sacramento Northern Bikeway Trail at North 18th Street through Sutter's Landing Regional Park to the H Street bridge. Phase I of the trail is complete and the City of Sacramento (City) recently completed a small section of the Phase II Trail within Sutter's Landing Regional Park, which was determined by the City in July 2018 to be exempt from review under CEQA (CEQA Guidelines §15304 and §15333). The proposed project would construct the remainder of Phase II by extending the Class 1 trail west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge (see **Figure 1**). This would result in a nearly continuous southern trail alignment that links the downtown area of Sacramento to the residential neighborhoods and California State University at Sacramento (CSUS) near the eastern boundary of the City.

The proposed project lies entirely within the City and the planning areas of the American River Parkway Plan (ARPP), which was adopted by the City Council on March 25, 1986 and updated by the County of Sacramento in 2008 (Sacramento County, 2008). The ARPP is a policy and implementation guide developed to promote the preservation of the American River's natural environment while providing limited development for human enjoyment of the parkway. The American River Parkway (Parkway) is an open space greenbelt approximately 29 miles long extending west/southwest along the north and south sides of the Lower American River from Folsom Dam to its confluence with the Sacramento River. The ARPP divides the Parkway into smaller area plans that include specific guidelines and descriptions for individual segments of the Parkway. The proposed project is located within the Woodlake and Paradise Beach ARPP areas (see **Figure 1**). These areas are predominately designated as Protected Areas under the ARPP, with habitat preservation and recreation-related activities being the primary uses. The proposed trail is consistent with the ARPP.

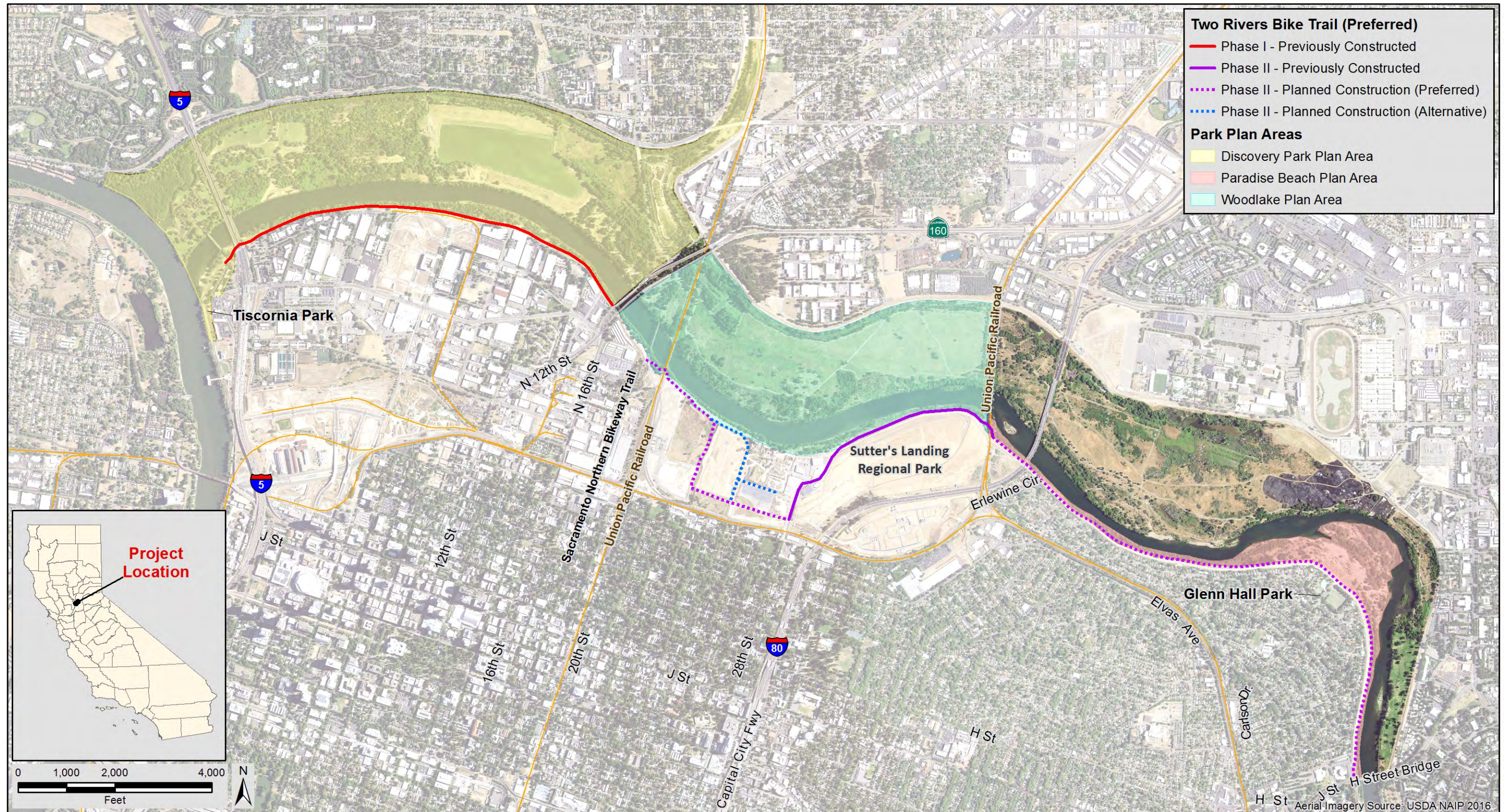
In addition to the plans and policies of the ARPP, the Two Rivers Trail Concept Plan Report (Concept Plan Report) was prepared to provide specific guidance on development of the multiuse trail (Jones & Stokes 2001). This concept plan documented existing conditions, the purpose of the Two Rivers Trail project, and the steps and costs needed to implement the project. The Concept Plan Report discussed the development of a paved trail along the top of the American River south levee, including access to the landside street system and connections to other existing and proposed trails, which would minimize environmental impacts to the Parkway. However, in response to agency concerns regarding geotechnical stability of the levee and potential conflicts between trail users and levee maintenance equipment along with neighborhood concerns for homeowner privacy and visibility to the residences in the River Park neighborhood, a lower bench^a alignment mostly along the waterside toe of the easterly segment of the levee is now proposed. This alignment would separate the trail users from levee maintenance operations, limit visibility to neighboring residences on the landside of the levee and have little or no effect on levee stability. A mid-height bench alignment along the waterside levee slope of the entire length of the proposed trail segments was more recently considered in an attempt to minimize habitat impacts along the waterside toe of the levee and address concerns raised by residents of the River Park neighborhood. However, because the U.S. Army Corps of Engineers (USACE) considered placement of the trail on a mid-height bench on the waterside levee slope to be a risk to levee performance and would potentially

^a A long, relatively narrow strip of relatively level or gently inclined land that is bounded by distinctly steeper slopes above and below it.

TWO RIVERS TRAIL – PHASE II (K15125000)
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

increase the cost of levee operations and maintenance costs; the mid-levee alignment was determined to be infeasible where adequate space along the levee toe to accommodate the trail was present (James, Pers. Comm. 2018).

Figure 1. Project Location Map



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Source: County of Sacramento 2008, adapted by GEI Consultants, Inc. in 2017; Reference: County of Sacramento. 2008. American River Parkway Plan 2008. Sacramento, CA.

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PROJECT OBJECTIVES

The objectives of the proposed project are to:

- Provide a vital recreation link between the Jedediah Smith Trail on the north side of the Parkway, the Sacramento River Parkway, the Sacramento Northern Bikeway Trail, the future Ueda Parkway trails, and the 20th Street bike connection to the Central City;
- Provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area;
- Provide opportunities for educating trail users through interpretive signage, establishing a connection to the river, and the Parkway;
- Provide an acceptable project to all authoritative agencies;
- Complete the project in a manner that minimizes environmental impacts to the Parkway, given the proposed project's location within the environmentally sensitive Parkway; and
- Where feasible, design trail access points to comply with the requirements of the Americans with Disabilities Act (ADA).

PROPOSED PROJECT

Trail Alignment

The proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail comprising 6 segments (**Figures 2 and 3**).

Segment 1 is approximately 0.4 miles long. It begins at the existing Sacramento Northern Bikeway Trail at North 18th Street and ends 0.3 miles west of Sutter's Landing Park (see **Figure 2**). At North 18th Street, the trail would run along the toe of the levee crossing under the Union Pacific Railroad (UPRR) and continue for another 0.3 miles.

Segment 2 is approximately 0.6 miles long. This segment begins at the eastern terminus of Segment 1 and continues to Sutter's Landing Regional Park (see **Figure 2**). Two trail alignments are under consideration for Segment 2. The preferred trail alignment, Alternative 1, which is approximately 0.7 miles in length, would diverge from the levee immediately at the end of the first segment and extend south for approximately 0.3 mile and then turn southeast and extend another approximately 0.4 mile to 28th Street at the entrance to Sutter's Landing Regional Park across the street from McKinley Village Way. The other alignment for Segment 2 (Alternative 2) is approximately 0.55 miles in length. It would extend east from the end of the first segment for another approximately 0.15 mile before diverging from the levee to the south. This leg of Segment 2 would then continue south approximately 0.25 mile, until it intersected with the preferred alignment, or would turn southeast 0.1 mile sooner and follow the north side of an existing solar array for approximately 0.15 mile before terminating in the parking lot adjacent to the dog park and across the street from the existing trail within Sutter's Landing Regional Park.

Segment 3 is approximately 0.3 miles long and begins on the east side of Sutter's Landing Park at the end of the recently completed trail segment. From here, the trail would run along an existing bench at the toe of the levee, first crossing under another portion of the UPRR and eventually under the Capital City Freeway (SR 80) where Segment 4 begins (see **Figure 3**).

Segment 4 is also approximately 0.25 miles long (see **Figure 3**). There is no defined bench on the water side of the levee in this segment. Consequently, to both avoid the potential for trail users to interfere with vehicles using the patrol road on the levee crown to perform levee maintenance and inspection activities,

and limit the ability of trail users to see into the yards of residences located directly adjacent to the land side of the levee, this trail segment would be constructed on the water side slope on an artificial bench offset from the top of the levee with a reduced path width to limit impacts. The trail segment would also include a small retaining wall along the inner edge of the trail to maintain the width of the levee crown for levee maintenance and patrol vehicle use. **Figure 4** provides a comparison of this proposed “bench” or mid levee cross section and the toe of typical levee cross section proposed for segments 3, 5, and 6.

Segment 5 is 1.4 miles long and passes Paradise Beach and Glenn Hall Park (see **Figure 3**). This trail segment has a bench all along the waterside toe where the trail would be aligned, but bench width varies such that this segment has been subdivided into three subsegments (to accommodate topographic conditions). Subsegment 5A is approximately 2,900 feet in length, and the waterside bench, although well-defined, is narrower in this area than in Subsegment 5B. Subsegment 5B is approximately 4,300 feet in length and has a well-defined, much wider and flatter, bench to accommodate the trail.

Subsegment 5C is approximately 500 feet in length and its waterside bench characteristics are similar to Subsegment 5A.

Segment 6 begins at the east end of Subsegment 5C along the levee toe, is approximately 0.3 miles long, and includes a transition back to the levee crown where the trail would connect to the existing paved trail near the H Street Bridge (see **Figure 3**). While there is a bench along the toe in this segment, the bench is much narrower than in other locations requiring a reduced path width to limit impacts.

Trail Design

The proposed multi-use trail design would meet California Department of Transportation (Caltrans) Class 1 bikeway design criteria and would also be based on the State Water Code Title 23 standards for recreation trails on levees and the ARFCD Recreational Trails Policy (ARFCD 2002). The trail would generally consist of an 8-foot-wide paved path with a 2-foot-wide compacted shoulder on the inner side and a similar 6-foot-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail, bringing the total trail cross section along most of its length to 16 feet wide. However, due to space limitations in some locations, the waterside shoulder of the trail would be narrowed to 4 feet wide. The trail would be paved and engineered to be load-bearing (**Figure 4**).

In Segments 1 and 2, where the trail would be located landward of the levee, storm water is expected to infiltrate into the ground before entering the City’s storm water conveyance system. In Segments 3-6 and where the trail would be along the levee crown or on the waterside of the levee in Segments 1 and 2, the trail would be slightly sloped toward the American River to maintain existing runoff patterns. In areas where trail design may cause minor ponding of water, small drain inlets would be installed to carry water under the bike trail to outlets on the river side of the trail. Outlets would discharge out of a flared end section and onto a small area of rock designed to reduce storm water velocity and disperse the water to prevent erosion at the outlet.

Union Pacific Rail Road Crossings

The trail in Segments 1 and 3 would cross under active railway lines. In these locations fencing would be constructed to prevent trail users from accessing the UPRR right-of-way. Fencing would be placed near the tops of the levee, directly adjacent (but not connecting) to the ends of the existing railroad bridges on one end and existing fences on the land side of the levees. The fences would be designed to meet UPRR requirements. Gates would be placed at the tops of the levee near the existing at-grade crossings to allow levee maintenance and patrol vehicles to use the crossings. Protective covers similar to the one depicted in **Figure 5** may also be constructed to protect trail users crossing under the railroad bridges from potential falling debris from above. The protective cover is anticipated to be a free-standing canopy supported on a cantilever structure that would

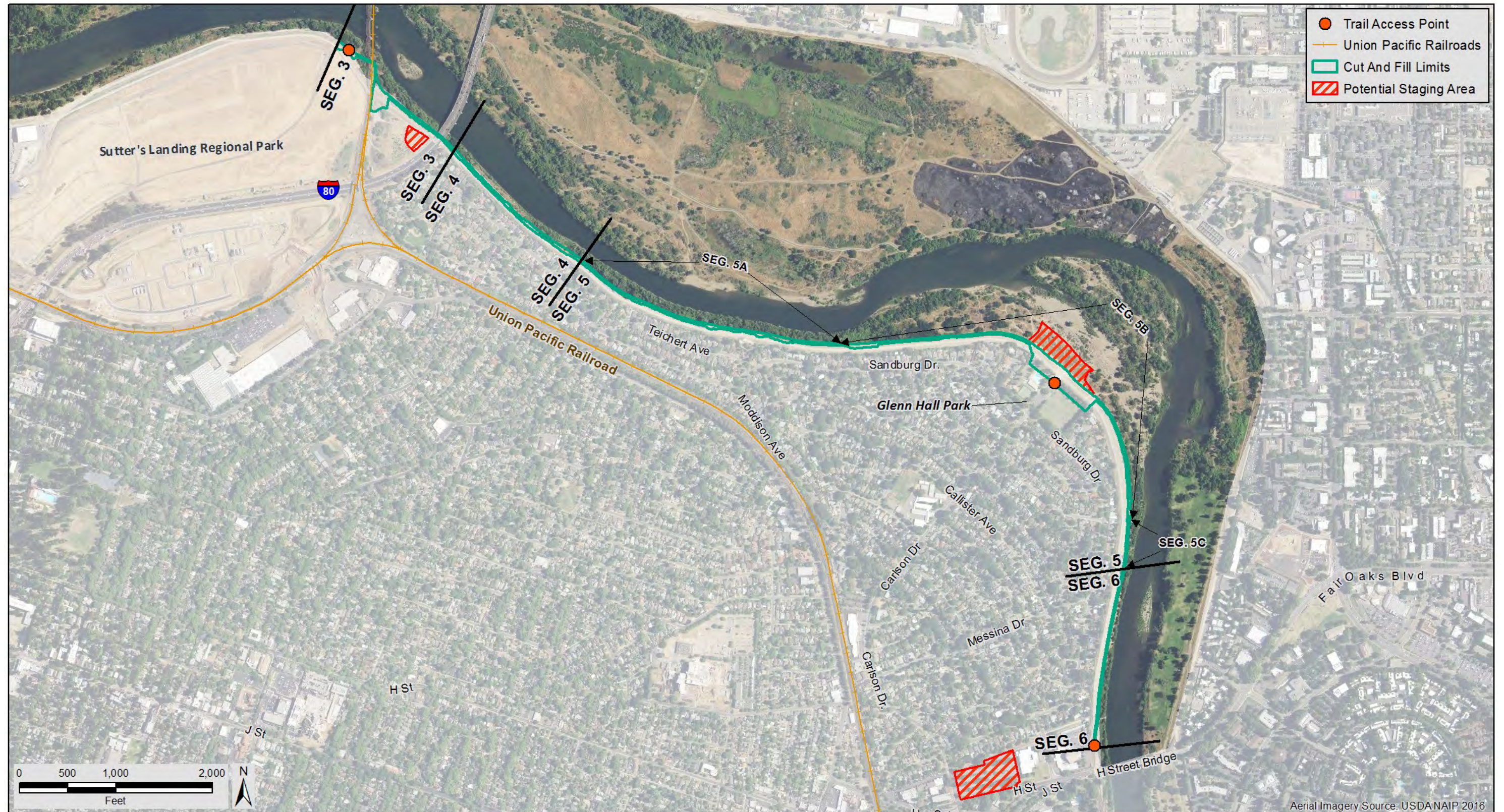
Figure 2. Proposed Trail Alignment – Western Segments



Source: Prepared by GEI Consultants, Inc. in 2017

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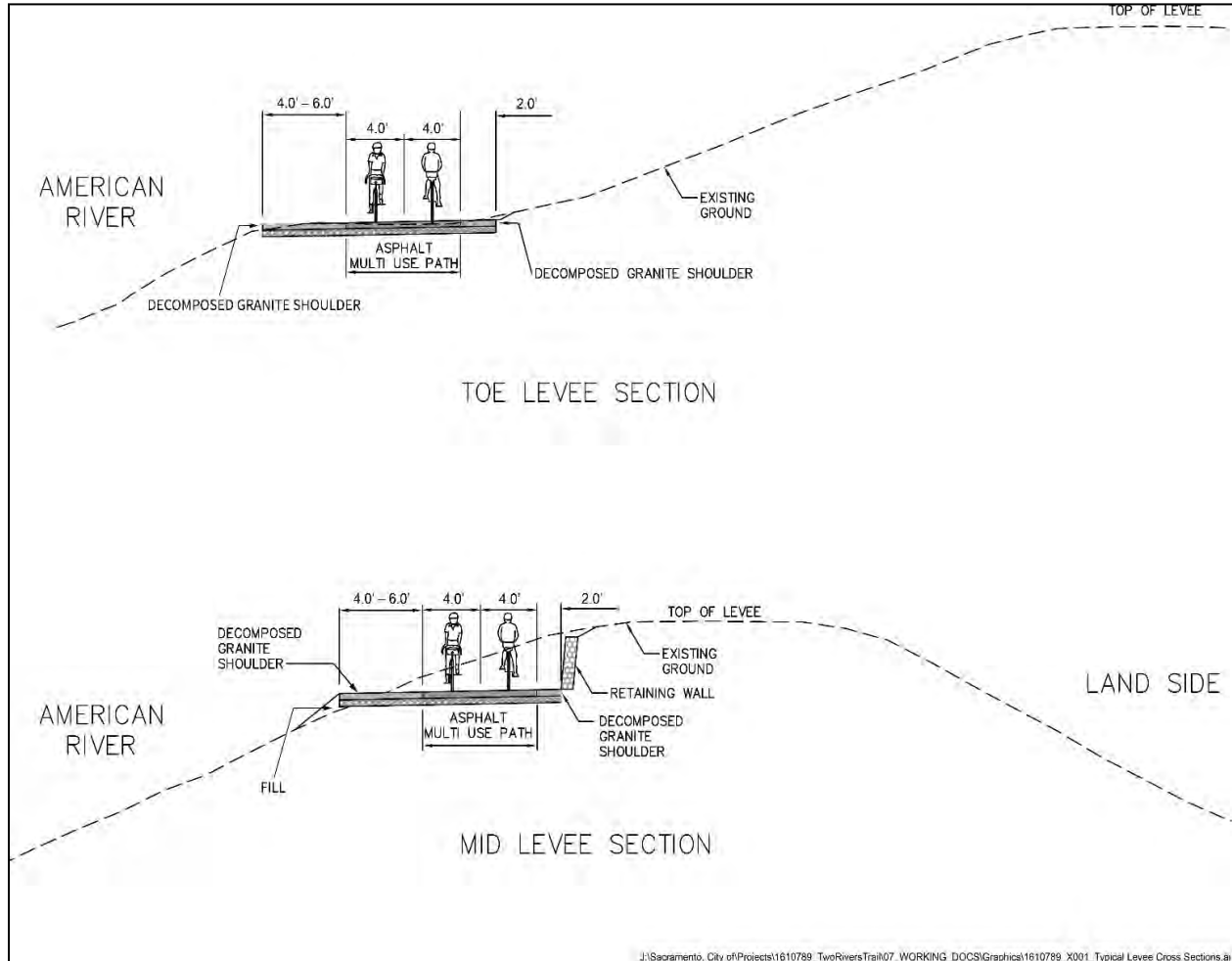
Figure 3. Proposed Trail Alignment – Eastern Segments



Source: Prepared by GEI Consultants, Inc. in 2017

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Figure 4. Typical Levee Cross Sections



Source: Prepared by Quincy Engineering, Inc. in 2017

extend up to 30 feet out perpendicular to each side of the railroad structure and would provide 3 feet of clearance below the railroad structure to allow access and inspection.

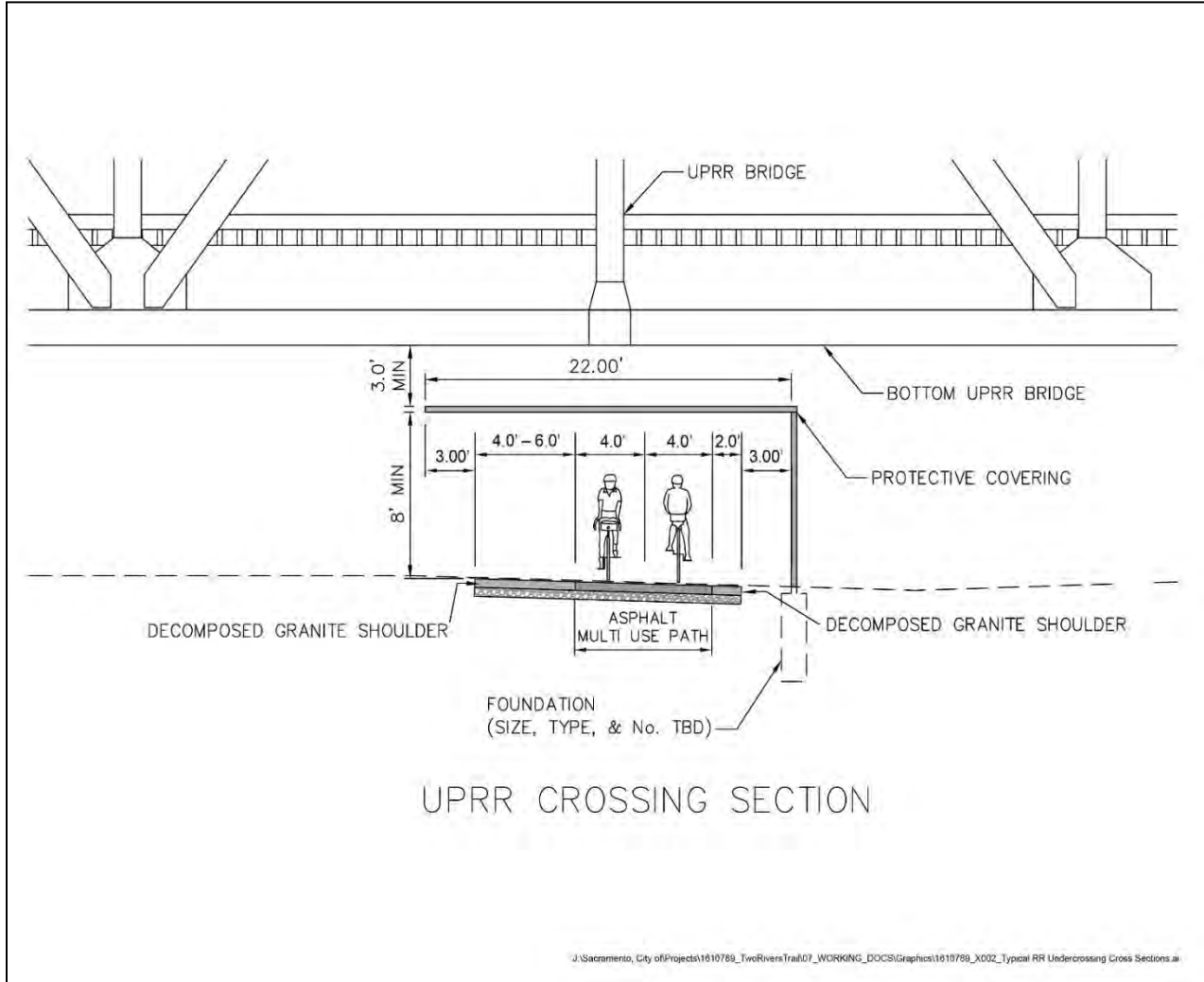
Public Access and Trail Connections

The proposed project has been designed to ensure access and connectivity with City neighborhoods, regional and local park facilities (Sutter's Landing Regional Park, Glenn Hall Park), and other regional trails (Jedediah Smith Memorial Trail). Four potential points of access have been identified and are described below. Directional and interpretive signage is also proposed at these locations. Signage would conform to the Parkway Trail & Parks Sign Manual (Sacramento County 2018).

Sacramento Northern Bikeway Trail (North 18th Street)

With the proposed project commencing just west of the Sacramento Northern Bikeway Trail, this access point in Segment 1 would facilitate connections to existing City neighborhoods (including New Era Park, Boulevard Park, and Alkali Flats) and newly developing areas of the City (including the Railyards) (see **Figure 2**). Trail users at this location could also access the larger regional trail system (Jedediah Smith Memorial Trail) via the Sacramento Northern Bikeway Bridge.

Figure 5. Typical Railroad Undercrossing Cross Section



Source: Prepared by Quincy Engineering, Inc. in 2017

Sutter's Landing Regional Park (28th Street)

Access to the trail would also occur at Sutter's Landing Regional Park in Segment 2 (see **Figure 2**) near the terminus of 28th Street by the entrance to the park. This location would also provide access from the trail south to on-street bike lanes connecting the trail to central city commercial, employment, and residential areas including the New Era Park, Marshall School, East Sacramento, and McKinley Park neighborhoods.

Glenn Hall Park

In Segment 5, access within the River Park neighborhood is proposed at Glenn Hall Park (see **Figure 3**). This point would provide ADA trail access to residents of the River Park neighborhood and would provide a connection to Carlson Avenue, Elvas Avenue, the CSUS campus, and surrounding commercial/residential areas.

H Street Bridge

The proposed project would connect to the existing paved trail along the south bank of the American River near the H Street Bridge at the terminus of Segment 6 (see **Figure 3**). This point provides an important connection linking the proposed project with the CSUS campus, the existing Jedediah Smith Trail on the north side of the Lower American River via the H Street Bridge, and the existing paved trail along the south

side of the Lower American River west of the H Street Bridge. This point would also provide access to east/west on-street bike lanes connecting the central city, the CSU Sacramento and the Campus Commons neighborhoods.

Project Construction

Construction Schedule

Construction of Segments 1 and 2 would take approximately 2 to 3 months to complete while Segments 3 through 6 would require approximately 5 to 6 months to complete. The City currently has construction funding to complete Segments 3 through 6 and proposes to complete construction of these four segments in 2020 between April 15 and November 1, in accordance with Title 23 requirements. Construction of Segments 1 and 2 would be completed at a future date, contingent on the availability of funding and landfill remediation activities in the area.

Methods

Trail construction would begin with clearing and grubbing any trees, shrubs and other organic material from within the construction limits. The alignment, including trail access points, would then be excavated, filled, and/or graded and compacted, as needed, to achieve a suitable base and ADA-compliant grades. Segment 4 of the trail would require excavating portions of the existing levee along the upper waterside slope. This would involve excavating approximately 4 to 5 feet into the levee embankment approximately 6 feet below the levee crown and installing a short (2 to 4 feet high) retaining wall on the inner side of the path. All the other segments of trail would only require minor excavation and fill to prepare for the Class I trail, with quantity estimates of these materials shown below in **Table 1**. Imported materials would include aggregate base rock and pavement materials that would be placed on top of the aggregate base to create the smooth finished paved surface of the trail. The materials, dimensions, and methods used would accommodate sufficient load-bearing capacity for heavy equipment used for levee maintenance and emergency operations, while maintaining the integrity of the pavement for recreational use.

Table 1. Estimates of Excavation and Import Fill for the Project		
Trail Segments	Material Type	Quantity Estimates (cy – cubic yards)
Segments 1 & 2	Excavation Amount	2,500 cy
	Import Fill Material	1,000 cy
	Import Aggregate Base Material	2,500 cy
	Import Pavement Material	650 cy
	Total Imported Materials	4,150 cy
Segments 3 through 6	Excavation Amount	6,000 cy
	Import Fill Material	1,000 cy
	Import Aggregate Base Material	5,400 cy
	Import Pavement Material	1,350 cy
	Total Imported Materials	7,750 cy

Following construction, the contractor would remove any construction materials and restore all disturbed surfaces to their pre-project condition, including replacing fences, repairing asphalt roadway surfaces, restoring existing slopes and grades, and revegetating affected surfaces through means such as hydroseeding. All hard surfaces would be cleaned of dirt, dust, or other construction materials.

Construction Equipment and Work Force

Equipment used for the project would include typical pieces of general construction equipment including backhoes, bulldozers, excavators, graders and compactors (**Table 2**). Some haul trucks may also be required including those with water (dust control) and seed sprayers (revegetation activities). All equipment

types would be below legal limits for operating on local streets and would be staged as close to the project site as possible.

Equipment	Construction Purpose
Backhoe	Soil manipulation
Bobcat	Fill distribution
Bulldozer/Loader	Earthwork construction, cleaning and grubbing
Excavator	Soil manipulation
Front-end Loader	Dirt or gravel manipulation
Grader	Ground leveling
Haul Truck	Earthwork construction; clearing and grubbing
Paver	Roadway paving
Roller	Earthwork and compacting
Scraper	Earthwork construction; clearing and grubbing
Truck with Seed Sprayer (hydroseeded)	Erosion control and landscaping
Water Truck	Earthwork construction; clearing and grubbing

An estimated 10 to 20 workers, which could vary based on specific trail development activity, would be onsite each day during construction activities. Construction activities would be limited to daylight hours, typically the hours from 7:00 a.m. to 6:00 p.m., Monday through Saturday, and possibly 9:00 a.m. to 6:00 p.m. Sunday. Construction-related noise during these hours is exempt from the City Noise Ordinance (City Code 8.68.080).

Construction Access and Staging Areas

Construction access would be via local roadways, including 28th Street (a local roadway), Carlson Drive (a minor collector), Camellia Drive (a local roadway) and H Street (an arterial east of Camellia Drive and major collector west of Camellia Drive) (City of Sacramento 2015).

Given the linear nature of the proposed project, several equipment staging areas would be required along the trail alignment (see **Figures 2 and 3**). The location of these staging areas has been planned to minimize construction activity/staging near residential/commercial areas to the extent feasible. Additionally, by distributing the staging areas at multiple locations along the project alignment/site, construction activity would also be distributed along the entire trail alignment resulting in shorter construction timeframes at individual locations and allowing for sections of the trail to remain open during construction.

Equipment staging areas may be located at the following locations:

- City-owned properties west and south of Sutter’s Landing Park (001-0160-018, 003-0010-001) (see **Figures 2**).
- City-owned property between UPRR Bridge and SR 80 (001-0170-006) (see **Figure 3**).
- Area northeast of Glenn Hall Park on the waterside of the levee (005-0010-002) (see **Figure 3**).
- Scottish Rite Center parking lot (005-0232-003) (see **Figure 3**).

The City Code (City Code 12.20.030) establishes requirements for a construction traffic control plan for projects which include street closures. Although street closures during construction are not anticipated, a modified construction traffic control plan would be implemented to minimize impacts associated with construction traffic and trail closures. This plan would be prepared by the construction contractor and

subject to review by the City Traffic Engineer and all affected agencies. All work performed during construction would be required to conform to the conditions and requirements of the approved plan. At a minimum, the plan would include the following:

- Safe and efficient access routes for emergency vehicles;
- Provisions for pedestrian safety;
- Provisions for pedestrian and bicycle detours, where necessary, including signage;
- Use of manual traffic control when necessary;
- Number of anticipated truck trips, and time of day of arrival and departure of trucks; and
- Provision of a truck circulation pattern and staging area with a limitation on the number of trucks that can be waiting and any limitations on the size and type of trucks appropriate for the surrounding transportation network.

The plan would be required to be available at the project site for inspection by the City representative during all work.

Trail Operations and Maintenance

Upon completion, the trail would be operated as a recreational Class 1 trail by the City of Sacramento. The trail operator would prepare and implement a plan of operation and maintenance (O&M) for the trail. This O&M plan would address all aspects of operating and maintaining the trail, including but not limited to public safety, litter control, graffiti control, signage, access control, security, compliance enforcement, repair, rehabilitation, replacement, and removal of recreational trails facilities. Typical maintenance activities would include routine inspections, debris removal, and repair of cracks and slope failures.

In addition to the maintenance tasks listed above, typical vegetation management activities would routinely occur, including the following:

- **Mowing** – Mowing activities would occur up to 4 times annually, performed by ARFCD. Mowing would generally occur within a 4-foot area on each side of the trail. Mowing within the drip-line of elderberry shrubs would be limited to the season when adult valley elderberry longhorn beetles (VELB) are not active (August - February) and would avoid damaging the elderberry shrub.
- **Trimming** –Trimming of vegetation and hazard tree/limb removal along the trail would occur once annually. Woody vegetation would be trimmed back up to 4 feet from the sides of the trail, with a 12-foot vertical clearance. Vegetation less than 3 inches in diameter would be cleared by hand or small engine weed-eaters or chainsaws. Small material or grasses would be mowed close to the ground with low impact rubber-tired tractors. Vegetation over 3 inches in diameter may require larger equipment such as telescoping chainsaws, hoe-mounted flail mowers, bucket machines to hoist the crew and equipment, and climbing crew with chainsaws.
- **Removal of Vegetation from Trail Surfaces** – The removal of invasive vegetation would be eradicated through very limited and selective application of herbicides. Per U.S. Fish and Wildlife Service (USFWS) recommendations, the use of insecticides, herbicides, fertilizers, or other chemicals would not be used within 98 feet of elderberry shrubs.

As much as feasible, all O&M activities that could occur within 165 feet of an elderberry shrub, would be conducted outside of the flight season of the VELB (March - July) to minimize impacts to VELB. However, it is assumed that up to 5 elderberry shrubs may be affected as part of maintenance activities.

High river flow events, and some levee, railroad, and trail maintenance activities may also require temporary closure of sections of trail from time to time. During such closures, signs would be placed by the trail operator or ARFCD crew at access points to the trail alerting users of the closure and designating alternate routes.

PROJECT PERMITS AND APPROVALS

- The following agencies may have permitting or approval authority over the proposed project:
- ARFCD – Encroachment permit for portions of the trail located on or extending across ARFCD facilities; easements for trails over lands owned by ARFCD in fee title.
- National Marine Fisheries Service (NMFS) – Federal Endangered Species Act Section 7 Consultation for potential effects to federally listed and proposed (endangered and threatened) anadromous fish species.
- Public Utilities Commission – Permission for railroad crossings.
- USACE – Rivers and Harbors Act Section 14 (408) authorization for alterations to a Federal project levee; Clean Water Act (CWA) Section 404 permit for dredge or fill of waters of the U.S.
- USFWS – Federal Endangered Species Act Section 7 Consultation for potential effects to federally listed and proposed (endangered and threatened) plant and wildlife species.
- Union Pacific Railroad – Encroachment permit for the portions of the trail passing under a Union Pacific Railroad Bridge.
- Caltrans – Encroachment permit for the portion of the trail passing under SR 80.
- California Department of Fish & Wildlife (CDFW) – California Fish and Game Code Section 1602 Streambed Alteration Agreement for construction and alterations within riparian areas.
- Central Valley Flood Protection Board – Encroachment permit for work within the flood control easement.
- Central Valley Regional Water Quality Control Board – CWA Section 401 Water Quality Certification for discharge to surface waters.
- County of Sacramento, Department of Regional Parks –approval of 100% construction drawings; Lease Agreement for staging and construction within the Parkway; Map Amendment to convert the trail from future to active status; and Joint Use Agreement.

SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES, AND MINERAL RESOURCES

Introduction

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the Initial Study identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses agricultural resources and mineral resources and the effect of the project on these resources.

Discussion

Land Use, and Population and Housing

The majority of the proposed trail alignment (from Sutter’s Landing Regional Park to H Street) is designated as “Parks and Recreation” on the City’s General Plan Land Use Diagram. The westernmost portion of the trail (between the Sacramento Northern Bikeway Trail and Sutter’s Landing Regional Park) is designated “Employment Center Low Rise” and identified as a “Proposed Park/Parkway” in the 2035 General Plan. The project site is zoned A-OS (Agricultural–Open Space), M-2 (Heavy Industrial), and ARP-F (American River Parkway–Floodplain).

The project site is located in an urbanized portion of the community. The Two Rivers Trail would be constructed in lands that are designated for recreational and park use adjacent to the Midtown and River Park neighborhoods. Development of the site as proposed would alter the existing landscape, but the project site has been designated for park and recreational use in the 2035 General Plan and the Planning and Development Code, and the proposed development is consistent with these planning designations. The project would not introduce any new housing or create demand for additional housing.

Agricultural Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources. See Master EIR, Chapter 4.1. In addition to evaluating the effect of the general plan on sites within the City, the Master EIR noted that to the extent the 2035 General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized. The Master EIR concluded that the impact of the 2035 General Plan on agricultural resources within the City was less than significant.

The project site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance). (FMMP 2016) The site traverses an area zoned

Agricultural-Open Space, but this area (a portion of Sutter's Landing Regional Park) is not currently in agricultural use, and there are no Williamson Act contracts that affect the project site. No existing agricultural or timber-harvest uses are located on or in the vicinity of the project site. The project would result in no impacts on agricultural resources.

Mineral Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on mineral resources. See Master EIR, Chapter 4.5. The Master EIR concluded that the impact of the 2035 General Plan on mineral resources within the City was less than significant. Within the City, projects near mining activities are required to be compatible with such activities, and buffers and setbacks are required from areas classified as MRZ-2 (mineral resource zone with significant existing or likely mineral deposits). No existing mining activities are located within the project site or vicinity. There are no areas designated as MRZ-2 within the project site or vicinity. The project would result in no impacts to mineral resources.

AESTHETICS

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
1. AESTHETICS Would the proposal:			X
A) Create a source of glare that would cause a public hazard or annoyance?			X
B) Create a new source of light that would be cast onto oncoming traffic or residential uses?			X
C) Substantially degrade the existing visual character of the site or its surroundings?			X

Environmental Setting

The project site extends along the south bank of the American River from the Sacramento Northern Bikeway to Sutter’s Landing Regional Park, and along the waterside of the levee from the eastern terminus of Sutter’s Landing Regional Park through the Paradise Beach area, to the H Street Bridge crossing the American River near CSUS. In Segments 1 and 2, the visual character is formed by riparian vegetation along the riverbank, with upland areas characterized by ruderal vegetation, small structures, and chain link fencing. Nearby industrial facilities, the Union Pacific Railroad, and solar panels in Sutter’s Landing Regional Park are also visible. Segments 3 through 6 are generally characterized by riparian vegetation between the levee toe and the riverbank. A dirt or gravel track or road extends along most of the levee toe, and the levee slopes are kept clear of vegetation other than grass and ruderal vegetation. A gravel maintenance road extends along the crown of the levee. Single family residences are present on the land side of the levee in Segments 3 through 6, and visible from the levee crown, although not from the toe or levee shoulder where the proposed project would be constructed. Appendix A contains photos illustrating existing conditions at the project site. Views of the river, typically framed by a mix of trees and smaller vegetation, are characteristic of Segment 1 and Segments 3 through 6.

The ARPP establishes aesthetic values for the American River Parkway and identifies policies to reduce visual impacts within the Parkway (Sacramento County 2008, p. 3-77, p. 7-111—112).

Standards of Significance

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the CEQA Guidelines, thresholds of significance adopted by the City in applicable general plans and previous environmental documents, and professional judgment. A significant impact related to aesthetics would occur if the project would:

- substantially interfere with an important scenic resource or substantially degrade the view of an existing scenic resource; or
- create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR described the existing visual conditions in the City of Sacramento, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for light and glare (Impact 4.13-1) and concluded that impacts would be less than significant.

Answers to Checklist Questions

Questions A and B

The proposed project would not introduce any new sources of light or glare to the project site. For the majority of the trail alignment, the trail would be paved, with gravel or aggregate shoulders. In Segment 4, a short retaining wall would be constructed on the inside of the trail to enable the trail to be located along the shoulder of the existing levee. Where the trail crosses under the two Union Pacific Railroad bridges, overhead structures may be required. However, the retaining wall and overhead structures would be designed in compliance with ARPP Policy 7.22, which require that structures be constructed of naturalistic materials and earth tones, and blend with surrounding vegetation. No lighting is proposed as part of the project. Therefore, this impact would be **less than significant**.

Question C

The project includes construction of a paved trail. As part of the construction of the trail, some existing vegetation, including trees, would be removed to provide a sufficient clear width along the levee toe for construction of the trail. Two overhead structures would be constructed where the trail would pass beneath the Union Pacific Railroad bridges, and a short retaining wall would be constructed in Segment 4 where the trail would traverse the levee slope due to the lack of any toe in this segment.

The existing visual character of the project site is generally formed by scrubby, riparian vegetation between the toe of the levee and the river, levee slopes covered by grassy vegetation, and upland uses including vacant lands, a former landfill, and (in Segments 3 through 6) single-family residences. There are numerous existing unpaved and gravel tracks and roadways along the levee crown and toes in the project vicinity. This visual character would not be significantly degraded by construction of the project. During construction activities, equipment would be staged at locations illustrated on Figures 2-2 and 2-3 in Chapter 2, "Project Description. These locations generally include vacant areas west of Interstate 80 Business, an area adjacent to Glenn Hall Park, and a parking lot located at H Street and Carlson Drive. Although construction activities and construction equipment staging would affect the visual character, this impact would be temporary, with impacts in any given area lasting less than a single construction season. After completion of the construction activities, although an existing dirt toe road would be paved, and some small and local improvements would be constructed (i.e. the overhead structures and the retaining wall), the overall visual character of the project site would remain. This impact would be **less than significant** due to the temporary nature of construction disturbances and the minor changes in visual character following implementation of the project.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Aesthetics.

AIR QUALITY

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
2. AIR QUALITY			
Would the proposal:			
A) Result in construction emissions of NOx above 85 pounds per day?			X
B) Result in operational emissions of NOx or ROG above 65 pounds per day?			X
C) Violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation?			X
D) Result in PM ₁₀ and PM _{2.5} concentrations that exceed SMAQMD requirements?			X
E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)?			X
F) Result in exposure of sensitive receptors to substantial pollutant concentrations?			X
G) Result in TAC exposures that create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?			X
H) Conflict with the Climate Action Plan?			X

Environmental Setting

The proposed project is located within the City of Sacramento. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary local agency with respect to air quality for all of Sacramento County, including the City of Sacramento. The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level.

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the “Delta breeze” that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated

in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half of the day from July to September, however, a phenomenon called the “Schultz Eddy” prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

As required by the Federal Clean Air Act (FCAA) passed in 1970, the United States Environmental Protection Agency (U.S. EPA) has identified six criteria air pollutants that are pervasive in urban environments and for which state and national health-based ambient air quality standards have been established. The U.S. EPA calls these pollutants “criteria air pollutants” because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM), and lead are the six criteria air pollutants. Notably, PM is measured in two size ranges: PM₁₀ for particles less than 10 microns in diameter, and PM_{2.5} for particles less than 2.5 microns in diameter. **Table 3** summarizes the attainment status for Sacramento County relative to national and California ambient air quality standards.

Pollutant	Designation/Classification	
	State Standards	Federal Standards
Ozone	Nonattainment	Nonattainment/Severe
Carbon Monoxide	Unclassified	Maintenance/Moderate
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Unclassified
Fine Particular Matter (PM ₁₀)	Nonattainment	Maintenance/Moderate
Fine Particular Matter (PM _{2.5})	Unclassified	Attainment

Source: California Air Resource Board, 2018a. U.S. Environmental Protection Agency, 2018a.

The California Air Resources Board (CARB) regional air quality monitoring network provides information on ambient concentrations of non-attainment criteria air pollutants. The monitoring stations that include data representative of the proposed project site are located on T Street (monitors ozone, PM₁₀, and PM_{2.5}) and 100 Bercut Drive (monitors active CO). **Table 4** presents a three-year summary of air pollutant concentration data collected at these monitoring stations for ozone, PM₁₀, PM_{2.5}, and CO.

Table 4. Summary of Air Quality Monitoring Data (2015-2017)				
Pollutant	Applicable Standard	Number of Days Standards Were Exceeded ^a and Maximum Concentrations Measured		
		2015	2016	2017
Ozone – T Street Station				
Days 1-hour State Std. Exceed	>0.09 ppm ^b	0	0	0
Max. 1-hour Conc. (ppm)		0.092	0.094	0.107
Days 8-hour National Std. Exceeded	>0.07 ppm ^c	4	3	3
Days 8-hour State Std. Exceeded	>0.07 ppm ^b	4	3	3
Max. 8-hour Conc. (ppm)		0.076	0.074	0.077
Suspended Particular (PM10) – T Street Station				
Estimated Days Over 24-hour National Std. ^d	>150 µg/m ³ ^c	0	0	0
Estimated Days Over 24-hour State Std. ^d	>50 µg/m ³ ^b	ND	1.1	ND
Max. 24-hour Conc. National/ State (µg/m ³)		57.8/59.1	50.3/51.4	149.9/150.3
State Annual Average (µg/m ³)	>20 µg/m ³ ^b	ND	19.6	ND
Suspended (PM2.5) – T Street Station				
Estimated Days Over 24-hour National Std. ^d	>35 µg/m ³ ^c	3	0	6.1
Max. 24-hour Conc. National (µg/m ³)		36.3	24.4	44.5
State Annual Average (µg/m ³)	>12 µg/m ³ ^b	9.6	7.7	9.2
Carbon Monoxide (CO) – Bercut Drive Station				
Days 8-hour Std, Exceeded	>9 ppm ^b	0	0	0
Max. 8-hour Conc. (ppm)		0.9	1.3	1.2
Days 1-hour Std. Exceeded	>20 ppm ^b	0	0	0
Max 1-hour Conc. (ppm)		1.3	1.6	1.87
Notes: conc. = concentration; ppm = parts per million; ppb=parts per billion; µg/m ³ = micrograms per cubic meter ND = No data or insufficient data. ^a Number of days exceeded is for all days in a given year, except for particulate matter. PM10 and PM2.5 are monitored every six days. ^b State standard, not to be exceeded. ^c National standard, not to be exceeded. ^d Particulate matter sampling schedule of one out of every six days, for a total of approximately 60 samples per year. Estimated days exceeded mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored. Source: California Air Resource Board, 2018b. United States Environmental Protection Agency 2018b.				

Standards of Significance

For purposes of this Initial Study, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies:

- Construction emissions of NOx above 85 pounds per day;
- Operational emissions of NOx or reactive organic gases (ROG) above 65 pounds per day;

- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Any increase in PM₁₀ concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year;
- CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for toxic air contaminants (TAC). TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

A project is considered to have a significant effect relating to greenhouse gas (GHG) emissions if it fails to satisfy the requirements of the City's Climate Action Plan (CAP).

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthy pollutant concentrations. See Master EIR, Chapter 4.2.

Policies in the 2035 General Plan in Environmental Resources were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, Policy ER 6.1.1 calls for the City to work with CARB and SMAQMD to meet state and federal air quality standards; Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.4 and ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of TAC as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.4, requiring coordination with SMAQMD in evaluating exposure of sensitive receptors to TACs, and imposing appropriate conditions on projects to protect public health and safety; as well as Policy LU 2.7.5 requiring extensive landscaping and trees along freeways fronting elevation and design elements that provide proper filtering, ventilation, and exhaust of vehicle air emissions from buildings.

The Master EIR found that greenhouse gas emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis. Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, and ER 6.1.15. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 CAP, which demonstrates compliance with and is the mechanism for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.8 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emission reduction goals. ER 6.1.9 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emission reductions goal. The discussion of greenhouse gas emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Initial Study. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2035 General Plan that addressed greenhouse gas emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 *et seq.* The Master EIR is available for review at the offices of Development Services Department, 300 Richards Boulevard, 3rd Floor, Sacramento, CA during normal business hours, and is also available online at <http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports>

Answers to Checklist Questions

Questions A, B, D, and F

The proposed project site is a planned Class 1 bicycle and pedestrian trail along the south bank of the American River. The project would not result in any new long-term (or operations-related) stationary or mobile air quality sources. Both construction and operations-related air quality impacts are described below.

Construction

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur. The proposed project would result in the temporary generation of emissions resulting from excavation, importing, material hauling, and worker trips over the course of 2-3 months for Trail Segments 1 and 2 and 5-6 months for Trail Segments 3 through 6. Fugitive dust, the dominant source of PM₁₀ and PM_{2.5} emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Worker commute trips and asphalt paving are dominant sources of ROG emissions.

Construction-related exhaust emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod allows the user to enter project-specific construction information, such as the types, number, and horsepower of construction equipment, and the number and length of off-site motor vehicle trips. Construction related emissions for the proposed project were estimated for construction worker commutes, haul trucks, and the use of off-road equipment.

The predicted maximum daily construction-generated emissions of ROG, NO_x, PM₁₀, and PM_{2.5}, associated with project construction and the SMAQMD significance criteria are shown in **Table 5**. As shown in the table, emissions generated during construction years 2020 and 2030 would not exceed SMAQMD's thresholds of significance. Consequently, construction-related air quality impacts resulting from implementation of the proposed project are considered less than significant. However, all projects that would involve construction activities, regardless of the significance determination, are required to implement SMAQMD's applicable Basic Construction Emission Control Practices. Implementation of Mitigation Measure 2-1, which includes applicable SMAQMD Basic Construction Emission Control Practices (including low vehicle speeds, limited equipment idling, etc.) would ensure that construction emissions remain low. Consequently, with implementation of **Mitigation Measure 2-1**, this impact would remain **less than significant**.

Operation

As a bicycle and pedestrian trail project, the proposed project would not result in the construction of new buildings or generate a significant number of operation-related vehicle trips that would result in any permanent stationary air quality source emissions. Trail operation would include a small number of vehicle trips resulting from routine inspections, debris removal, trail repair of cracks, in addition to typical vegetation management activities. However, these trips are considered relatively small and would only occur as needed to maintain the trail. Operation-related air quality emissions resulting from the project would not result in operational emissions of NO_x or ROG above 65 pounds per day. Consequently, this impact is considered **less than significant**.

Table 5. Unmitigated Project Construction Emissions (Maximum) Pound Per Day					
Construction Phase	Emissions (lbs/day)				
	ROG	NOx	PM10	PM2.5	CO
Overall Maximum Construction Emissions					
2020 (Segments 3-6)	4.3	42.9	51.2	6.7	28.1
2030 (Segments 1-2)	3.0	12.5	47.0	5.1	22.2
SMAQMD Significance Criteria	None	85	80	82	None
<i>Significant?</i>	<i>N/A</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>N/A</i>
Note: lbs/day = pounds per day, ROG = reactive organic gases, NO _x = oxide of nitrogen, PM ₁₀ = particular matter with aerodynamic diameter less than 10 micrometers, PM _{2.5} = particular matter with aerodynamic diameter less than 2.5 micrometers, CO = carbon monoxide. Source: Emissions modeled by GEI Consultants Inc. using the California Emissions Estimator Model (CalEEMod), version 2016.3.2 computer program. Refer to Appendix B for model data outputs.					

Question C

The SVAB is currently designated as nonattainment for the State and Federal ambient air quality standards for ground-level O₃, as well as for the Federal standards for PM_{2.5}. The air basin’s nonattainment status is attributed to the region’s development history. Past, present, and future development projects contribute to the region’s adverse air quality impacts on a cumulative basis. By its nature, air pollution is largely a cumulative impact. According to SVAB the SMAQMD’s approach to thresholds of significance is relevant to whether a project’s individual emissions would result in a cumulative considerable adverse contribution to the SVAB’s existing air quality conditions. If a project’s emissions would be less than these levels, the project would not be expected to result in a cumulatively considerable contribution to the significant cumulative impact. As shown in **Table 5**, the proposed project does not exceed any of the SMAQMD’s threshold of significance and therefore would not violate any air quality standards. This impact is considered **less than significant**.

Question E

Intersections that are categorized as a level of service (LOS) E or F result in increased delays and idling times. These intersections have the potential to create CO hotspots, which may result in an exceedance of the 1-or 8-hour State CO standard. A CO hotspot can also result in the exposure of nearby sensitive receptors to unhealthy CO concentrations. The SMAQMD’s CEQA Guide to Air Quality Assessment in Sacramento County provides screening criteria to assess whether project-related vehicle trips would result in the generation of CO emissions that exceed or contribute to an exceedance to the California Air Quality Standard for CO.

As described above in **Question A**, the proposed project would not add long term vehicle traffic since it would only be developing a bike and pedestrian walking trail. Existing traffic patterns and roadway intersection levels of services are not anticipated to change, with exception of the temporary and short-term construction-related traffic that would result in or contribute to a CO hotspot. Additionally, CO, SO₂, and lead are of less concern because construction activities are not likely to generate substantial quantities of these criteria air pollutants. Therefore, the project would not result in CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm). This impact is considered **less than significant**.

Question F

Some members of the population are especially sensitive to emissions of air pollutants and should be given special consideration during the evaluation of a project’s air quality impacts. Sensitive receptors include children, older adults, and persons with pre-existing respiratory or cardiovascular illness. Residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes are also included as sensitive receptors. While residences are located adjacent to portions of the project site, the proposed project is not expected to result

in the exposure of sensitive receptors to substantial pollutant concentrations, given the short-term nature of these construction emissions and the distance of these residences to the construction site. This impact is considered **less than significant**.

Question G

There are no ambient air quality standards for TACs. One of CARB's public health priorities is reducing diesel PM generated by trucks, which is the primary TAC found to be responsible for most of the cancer and non-cancer health risks associated with airborne exposure. SMAQMD has developed a methodology to assist local land use jurisdictions in assessing the potential cancer risk of siting sensitive land uses adjacent to major roadways. This methodology is contained in SMAQMD's *Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways*. The methodology also provides a disclosure mechanism for those risks and shows the relationship between potential cancer risk from diesel PM exposure and distance from a major roadway. According to the SMAQMD evaluation criteria, a site specific HRA is recommended only when cancer risks meet or exceed 446 cases per million.

As described above under **Question "A"**, project-related construction emissions are considered short term and of temporary duration, lasting only as long as construction activities occur. The proposed project would not result in the construction of new buildings or generate a significant number of operation-related vehicle trips that would result in permanent stationary air quality source emissions. Because the potential generation of TACs would be temporary and intermittent in nature and the relatively low exposure period in combination with the dispersive properties of diesel PM, construction-related emissions would not result in the exposure of sensitive receptors to TAC concentrations that would exceed 10 in a million cancer risks.

Additionally, Mitigation Measure 2-1 would implement SMAQMD's Basic Construction Mitigation Measures and reduce diesel PM emissions from heavy-duty construction equipment by limiting idling time, limiting construction vehicle speeds, and properly maintaining construction equipment. Therefore, the impact would be **less than significant** with incorporation of **Mitigation Measure 2-1**.

Question H

In 2012, the City of Sacramento adopted a community wide CAP. The CAP outlines multiple initiatives intended to help the City achieve its overall goals of reducing community-wide emissions by 15% below 2005 levels by 2050. Included in the CAP are a comprehensive set of strategies, measures and implementing actions to achieve the 2020 GHG reduction target. These GHG reduction measures and actions apply to both existing sources within the City as of the 2005 baseline and projected emissions from new growth and development anticipated in the 2035 General Plan. In addition, the CAP identifies potentially adverse physical effects related to climate change on the community and includes specific adaptation measures to address and mitigate such effects.

The proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail comprising 6 segments consistent with the City's Bikeway Master Plan, Planning and Development Code, and CALGreen standards. The proposed project lies entirely within the City and the planning areas of the ARPP, which was adopted by the City Council on March 25, 1986 and updated by the County of Sacramento in 2008. In addition to the plans and policies of the ARPP, the Two Rivers Trail Concept Plan Report was prepared to provide specific guidance on development of the multiuse trail. Therefore, the project incorporates bicycle facilities consistent with the City's Bikeway Master Plan and meets the standards for bicycle facilities.

As previously described above, the proposed bicycle and pedestrian trail project does not include the development of additional housing units or result in land uses that would generate additional sources of permanent or long-term greenhouse gas emissions. Consequently, **no impact** is expected.

Mitigation Measures

Mitigation Measure 2-1 Implement Construction-related Emission Control Practices:

The City shall ensure that the construction contractor implement all basic construction emission control practices and requirements of SMAQMD Rule 403 during trail construction activities, including the following:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

Maintain all equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Responsibility: City of Sacramento

Timing: During Construction Activities

Findings

The project would have no additional project-specific environmental effects relating to Air Quality; however, mitigation has been incorporated to comply with SMAQMD requirements.

BIOLOGICAL RESOURCES

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
3. BIOLOGICAL RESOURCES			
Would the proposal:			
A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?			X
B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species?		X	
C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)?		X	

Environmental Setting

A Natural Environment Study (Area West Environmental, Inc. 2018) (NES) was prepared, for the City and Caltrans, that included a biological evaluation and field surveys of the study area to evaluate site conditions and potential impacts to biological resources from project activities. Other primary references consulted include species lists and information gathered using USFWS, Information, Planning, and Conservation System (IPAC), CDFW Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and a literature review. The NES conclusions are the result of field survey findings and research.

Area West Environmental, Inc. conducted focused biological field surveys on May 6 and 10, 2014; July 21, 2014; April 3, 4, 5, 11, and 12, 2017; June 21 and 22, 2017; February 27 and 28, 2018; and March 14, 2018. All vegetation and habitat types within the biological study area were noted, mapped, and evaluated, and VELB habitat assessments were conducted in accordance with USFWS 1999 guidance and 2017 framework (USFWS 1999, 2017). The Biological Study Area (BSA) for the project site includes the project footprint (Segments 1 through 6 and potential access and staging areas), and a 165-foot buffer.

Habitat and Land Cover Types

The BSA supports six generalized vegetation community types consisting of four upland communities (urban, ruderal, annual grassland, mixed scrub, and valley foothill riparian) and one aquatic community (Riverine [American River]). **Table 6** presents habitat information for the BSA. Habitat maps for Segments 3 through 6, the portion of the proposed trail that would be construction in the near term, are included in Appendix C.

Urban

The urban vegetation community consists of residential homes, industrial facilities, paved and graveled roadways, dirt trail, and train tracks. Vegetation within the urban community is regularly maintained with mowing, vegetation trimming and herbicide. Where residential homes with landscaped yards are present, horticultural species often included privet (*Ligustrum japonicum*), oleander (*Nerium oleander*), redwood (*Sequoia sempervirens*), interior live oak, and numerous cultivars of herbaceous garden plants.

Habitat Community	Acres within the Project Study Area
Urban	93.91
Ruderal	16.68
Annual Grassland	65.15
Mixed Scrub	7.78
Valley Foothill Riparian	34.15
Riverine (American River) ¹	27.03
Notes: ¹ Acreages presented are subject to verification by the U.S. Army Corps of Engineers. Modifications of the riverine acreage would increase or decrease the acreage of other vegetation communities accordingly. Source: Area West Environmental, Inc., 2018	

The urban community may provide habitat for nesting migratory birds and raptors, one large stick nest was observed in the top of a redwood tree located in a backyard in the eastern segment of the project alignment. Residential homes may provide nest boxes for birds and bird feeders to attract foraging birds. Other species that may use urban habitats for foraging include raccoon (*Procyon lotor*) and coyote (*Canis latrans*). Other areas like the graveled levee road and dirt trail consist of bare ground and are devoid of vegetation, and typically do not provide habitat for any special-status plants or wildlife species. Although killdeer (*Charadrius vociferus*) was observed using this habitat for nesting, and other wildlife, such as small lizards like western fence lizard (*Sceloporus occidentalis*) will use the roadway for basking.

Ruderal

The ruderal vegetation community consists of non-native annual grasses and forbs that are regularly maintained (mowed, sprayed with herbicide, etc.) along the fringes of the levee road (mainly the southern side), rail road right-of-way, or vacant lots. In the ruderal areas, annual grasses included foxtail barley (*Hordeum murinum*), soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and wild oats (*Avena fatua*). Annual forbs included filaree (*Erodium* spp.), smooth cat's ears (*Hypochaeris glabra*), English plantain (*Plantago lanceolata*), wild geranium (*Geranium dissectum*), and burclover (*Medicago polymorpha*). Shrubs such as California blackberry (*Rubus ursinus*) and coyote brush (*Baccharis pilularis*) were also observed in scattered patches in this habitat.

Due to continual disturbance, this vegetation community does not provide suitable habitat for special-status plant or wildlife species. However, this ruderal habitat may support various species of wildlife including small rodent species that forage on seeds or herbaceous growth such as California vole (*Microtus californicus*) and Botta's pocket gopher (*Thomomys bottae*). These prey species, along with insects supported by this habitat attract a variety of wildlife that forage in annual grassland including species such as western meadowlark (*Sturnella neglecta*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), and gopher snake (*Pituophis catenifer*).

Annual Grassland

Annual grassland is found throughout the BSA and consists of non-native annual grasses and forbs. Species present in the annual grassland community are identical to species found in the ruderal community; the only exception between the two communities is that the ruderal community is regularly managed. In addition to annual grasses, forbs, and shrubs, the annual grassland community also consists of scattered occurrences of shrubs and trees.

The same wildlife species described as having potential to use the ruderal habitat would be the same species to use the annual grassland habitat. Additionally, a white-tailed kite was observed foraging in annual grasslands within the BSA near the 16th Street Bridge on April 12, 2017, and then a pair was observed in the same area on February 27, 2018.

Mixed Scrub

The mixed scrub community occurs in scattered patches, intermixed with annual grassland in the western segment of the BSA. While similar to riparian vegetation growing on the south side of the American River (between the levee and river), the mixed scrub community is not influenced by the river. As the name suggests, this community is not dominated by any one species. The main shrubs and trees contributing to the canopy layer are blue elderberry (*Sambucus nigra*), tree of heaven (*Ailanthus altissima*), domestic almond (*Prunus dulcis*), valley oak, and coyote brush. The understory of this community consists of species found in the ruderal and annual grassland communities.

The mixed scrub community is highly disturbed by human activity in the vicinity of Segments 1 and 2. Vegetation in this area has been altered to establish camps and trash piles are scattered throughout the area.

As previously mentioned, blue elderberry shrubs are the obligate host for VELB larvae. Focused surveys identified VELB habitat (elderberry shrubs) within the elderberry savanna community in the BSA. Additionally, larger shrubs and trees in these areas could provide habitat for nesting raptors or migratory songbirds.

Valley Foothill Riparian

Valley foothill riparian is present along the south side of the American River. Dominant species in the canopy layer are valley oak, Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), Northern California black walnut (*Juglans hindsii*), and black locust (*Robinia pseudoacacia*). Subcanopy trees present include boxelder (*Acer negundo*), white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), and blue elderberry. Typical understory shrub layer plants include wild grape (*Vitis californica*), wild rose (*Rosa californica*), willows (*Salix* sp.), and blackberry. The herbaceous layer consists mainly of bedstraw (*Galium* sp.), man-root (*Marah fabacea*), and non-native grasses. In a section of this habitat located in the Paradise Beach Park area, the vegetation opens up and is less dense. This area has sandier soils and is dominated by herbaceous species such as California tule pea (*Lathyrus jepsonii* var. *californica*), hairy vetch (*Vicia villosa*), and non-native grasses, along with scattered silver bush lupines (*Lupinus albifrons*), shrubs, and trees.

The valley foothill riparian community is also highly disturbed by human activity. There are many trails that have been established throughout this habitat type that provide access down to the river. During the 2017 and 2018 surveys there was evidence of trail maintenance activities along the current trail (trimmed back vegetation).

Focused surveys identified VELB habitat within the valley foothill riparian community in the BSA. During the 2014 VELB surveys, a single female VELB was documented within this community type in the BSA. Trees in riparian habitat with cavities or tree hollows could provide habitat for cavity nesting birds. Habitat is also present for other migratory nesting birds and raptors. Red-shouldered hawk (*Buteo lineatus*) and red-tailed hawk were observed nesting in riparian habitat and foraging in adjacent annual grasslands. Thick brambles within the understory of the riparian habitat provide habitat cover along the banks for species such as American beaver (*Castor canadensis*) and river otter (*Lontra canadensis*).

American River (Riverine)

The American River occurs in the BSA and conveys water from the surrounding foothills of the Sierra Nevada Mountains to the southwest. The river flows into the Sacramento River which drains to San Francisco Bay. The riverine community supports riparian wetland vegetation outside of the ordinary high water mark (OHWM). Rocky erosion controls (e.g. riprap) have been placed along sections of riverbank within the BSA to protect the levee from erosion. In most areas with riprap, riparian vegetation has reestablished and includes alders, willows, and blue elderberries.

The American River provides habitat for anadromous fish species, such as Central Valley steelhead (*Oncorhynchus mykiss irideus*) and chinook salmon (*Oncorhynchus tshawytscha*). The American River also provides habitat for a multitude of bird species, such as Canada goose (*Branta canadensis*), mallard

(*Anas platyrhynchos*) and several other species. The river provides habitat for reptiles such as western pond turtle (*Actinemys marmorata*), which could occur basking along the banks or on emergent logs, or laying eggs along the bank. Amphibian species observed included Sierran tree frog (*Pseudacris sierra*).

Common Animal Species

The BSA provides habitat for an assemblage of wildlife species that are commonly found within stream/riparian corridors and valley grassland communities, as described above under each vegetation community description. During field surveys of the site, observations of wildlife were made, including raptors, great blue heron, egret, mallards and other waterfowl, beaver, and numerous species of birds. Cavity nesting birds, such as tree swallow (*Tachycineta bicolor*), were observed and could use tree hollows present throughout the BSA. Species such as cliff swallow (*Petrochelidon pyrrhonota*) and/or black phoebe (*Sayornis nigricans*) could nest under bridges.

Trees

Throughout the BSA there are numerous native and non-native tree species. Trees provide habitat for various wildlife including nesting birds and squirrels. Trees also provide shade over the American River which is essential for fish and aquatic species. Dominant tree species within the BSA included Fremont cottonwood, Oregon ash, Valley oak, arroyo willow, northern California black walnut, and black locust. Additional trees located within the BSA occur within residential neighborhoods adjacent to the levee; these are dominated by non-native horticultural trees, such as maples (*Acer* sp.), Eucalyptus (*Eucalyptus* sp.), privet, olive (*Olea europaea*), and various fruit and citrus trees (*Citrus* sp.).

Fish and Wildlife Migration Corridors

River/riparian corridors, such as that found along the lower American River, are commonly used by wildlife as migration and movement corridors. Striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), black-tailed deer (*Odocoileus hemionus*) and song birds are commonly found traversing river/riparian corridors. Species of special concern that could use the American River as a migration corridor include ringtail (*Bassariscus astutus*) and western pond turtle. The Lower American River Watershed supports numerous species of native and nonnative fish species, including naturally spawning fish species of concern such as fall-run Chinook salmon and Central Valley steelhead.

Special-status Species

Special-status species with the potential to occur near the BSA were identified based on the species lists provided by USFWS (2018), NMFS) species list (2018), CNDDDB records search (2018), CNPS Inventory of Rare and Endangered Plants (2018), and species distribution and habitat requirements data.

Special-status Plants

During the pre-field investigation, 16 special-status plant species were identified during the pre-field review as potentially occurring in the vicinity of the BSA. Based on the lack of suitable habitat (i.e., vernal pools, alkaline, and brackish soils), only 6 of the 16 special-status plant species (bristly sedge [*Carex comosa*], Peruvian dodder [*Cuscuta obtusiflora* var. *glandulosa*], Mason's lilaeopsis [*Lilaeopsis masonii*], Sanford's arrowhead [*Sagittaria sanfordii*], woolly rose mallow [*Hibiscus lasiocarpus* var. *occidentalis*], and Northern California black walnut have potential to occur in the BSA.

Scattered occurrences of Northern California black walnut trees were observed within the BSA. Black walnut trees occur within riparian forests and woodlands throughout Northern California. Historically, native varieties of black walnut trees were used as rootstock for English walnut (*Juglans regia*), resulting in hybridized trees. Over time, cultivated trees escaped and have become widely naturalized in parts of California. CNPS lists Northern California black walnut as 1B.1, and as such, is rare and endangered elsewhere, and seriously endangered in California. The CNPS designation only refers to the remaining native, un-hybridized stands of black walnuts. According to CNPS' *Inventory of Rare and Endangered Plants*, the current presumed extent of native trees only occurs within Contra Costa, Napa, and possibly Lake counties (CNPS 2018). Since the native species of black walnut is considered to be extirpated from

Sacramento County (CNPS 2018), it is highly unlikely that the black walnut trees observed within the BSA belong to a remaining native stand.

Special-status Wildlife

Based on the results of the field surveys and review of existing information including a search of the CNDDDB, USFWS and NMFS species lists, and species distribution and habitat requirements data, 34 special-status wildlife species were identified during the pre-field review as occurring or having the potential to occur within the vicinity of the proposed project.

Of the 34 special-status wildlife species, 16 species would not occur in the BSA or have the potential to be affected by the proposed project because: 1) the BSA lacks suitable habitat for the species, 2) the BSA is outside the species' known range, and/or 3) field surveys determined that the species is not present. The remaining 17 species identified below have potential to occur within the BSA:

- Green Sturgeon Southern Distinct Population Segment (DPS), federally threatened species and state species of special concern;
- Central Valley steelhead DPS, federally threatened species;
- Central Valley fall/late-fall-run Chinook salmon Evolutionarily Significant Unit (ESU), NMFS and state species of special concern;
- Central Valley spring-run Chinook salmon ESU, federally threatened species;
- Sacramento splittail, state species of special concern;
- Valley elderberry longhorn beetle, federally threatened species;
- Western pond turtle, state species of special concern;
- Burrowing owl, state species of special concern;
- Swainson's hawk, state threatened species;
- White-tailed kite, state fully protected species;
- Bald eagle, state endangered and state fully protected species;
- Song sparrow "Modesto population", state species of special concern;
- Purple martin, state species of special concern;
- Bank swallow, state threatened species;
- Least Bell's vireo, federally endangered species and state endangered species;
- Ringtail, state fully protected species; and
- Western red bat, state species of special concern.

Special-status Species Critical Habitat

Based on the results of the field surveys and review of existing information, the BSA falls within designated critical habitat for Central Valley steelhead and Central Valley spring-run Chinook salmon.

Other Protected Wildlife Species

In addition to the wildlife species listed above, the BSA was also evaluated for its potential to support migratory birds and raptors which are not special-status species. Trees and shrubs within and adjacent to the BSA could provide nesting habitat for migratory birds and raptors.

Additionally, Chinook salmon Essential Fish Habitat (EFH) and groundfish EFH are mapped and listed by NMFS within the BSA. These EFHs are managed under the Magnuson-Stevens Fishery Conservation and Management Act.

Standards of Significance

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

For the purposes of this document, “special-status” has been defined to include those species, which are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed for, or candidates for, listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (Section 1901);
- Designated as fully protected, pursuant to California Fish and Game Code (Section 3511, 4700, or 5050);
- Designated as species of concern by USFWS, or as species of special concern to CDFW;
- Plants or animals that meet the definition of rare or endangered under CEQA.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the City. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy ER 2.1.11 requires the City to coordinate its actions with those of CDFW, USFWS, and other agencies in the protection of resources.

The Master EIR discussed biological resources in Chapter 4.3. The Master EIR concluded that policies in the general plan, combined with compliance with the California Endangered Species Act, Natomas Basin Habitat Conservation Plan (when applicable) and CEQA would minimize the impacts on special-status species to a less-than-significant level (see Impact 4.3-1), and that the general plan policies, along with similar compliance with local, state and federal regulation would reduce impacts to a less-than-significant level for habitat for special-status invertebrates, birds, amphibians and reptiles, mammals and fish (Impacts 4.3-3-6).

Given the prevalence of rivers and streams in the incorporated area, impacts to riparian habitat is a common concern. Riparian habitats are known to exist throughout the City, especially along the Sacramento and American rivers and their tributaries. The Master EIR discussed impacts of development adjacent to riparian habitat that could disturb wildlife species that rely on these areas for shelter and food and could also result in the degradation of these areas through the introduction of feral animals and contaminants that are typical of urban uses. The CDFW regulates potential impacts on lakes, streams, and associated riparian (streamside or lakeside) vegetation through the issuance of Lake or Streambed Alteration Agreements (per Fish and Game Code Section 1602) and provides guidance to the City as a resource agency. While there are no federal regulations that specifically mandate the protection of riparian vegetation, federal regulations set forth in Section 404 of the CWA address areas that potentially contain riparian-type vegetation, such as wetlands.

The 2035 General Plan calls for the City to preserve the ecological integrity of creek corridors, canals and drainage ditches that support riparian resources (Policy ER 2.1.5) and wetlands (Policy ER 2.1.6) and requires habitat assessments and impact compensation for projects (Policy ER 2.1.10). The City has adopted a standard that requires coordination with state and federal agencies if a project has the potential to affect other species of special concern or habitats (including regulated waters and wetlands) protected by agencies or natural resource organizations (Policy 2.1.11).

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. While this would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the 2035 General Plan. Given the extent of urban development designated in the 2035 General Plan, the preservation and/or restoration of riparian habitat would likely occur outside the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact. (Impact 4.3-7)

Answers to Checklist Questions

Question A

Project activities would not disturb contaminated soils or release any materials that would be hazardous to special-status species during construction of Segments 3 through 6. However, portions of the project site in Segments 1 and 2 include lands that were historically used for waste disposal, and the Phase I Environmental Site Assessment prepared for the project indicated the potential presence of contaminated soil (see Item 7, Hazards, below). Therefore, project activities could disturb contaminated soils or release materials that would be hazardous to special-status species, and this impact would be potential significant. **Mitigation Measure 7-2** would reduce the impact related to exposure of special-status species to contaminated soil to a **less-than-significant** level because measures would be taken to ensure appropriate closure of potentially contaminated sites prior to construction.

Questions B and C

Impacts from project activities are described by resource, below.

American River Habitat

The project could result in indirect impacts to the American River related to increased sediment loads from earth moving activities during construction or the accidental introduction of wash water, solvents, oil, cement, or other pollutants during construction or maintenance. This impact would be potentially significant.

Implementing **Mitigation Measures 3-1 through 3-4** would reduce this impact to a **less-than-significant** level by requiring training, fencing, BMPs to avoid sediment transport, and restoring disturbed areas to pre-project conditions.

Valley Foothill Riparian Habitat

Construction of the proposed trail would affect the Valley foothill riparian habitat. Although the proposed project has been designed to minimize impacts on mixed riparian woodland habitat by using developed areas and annual grassland where possible, construction of the proposed trail would result in approximately 0.05 acre of temporary impacts in Segments 1-2 and 1.75 acres in Segments 3-6, and approximately 0.60 acre of permanent impacts in Segments 1-2 and 0.80 acre in Segments 3-6 to Valley foothill riparian habitat. Temporary impacts would occur as a result of vegetation clearing, grubbing, or trimming of tree canopy required in order to provide construction crews and equipment access to the project alignment and as part of maintenance activities. Permanent impacts on riparian habitat would occur as a result of construction of the proposed trail. No permanent impacts to Valley foothill riparian habitat would occur from operation and maintenance activities. Impacts to Valley foothill riparian habitat would be significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-5, 3-6, and 3-7** would reduce impacts to a **less-than-significant** level by requiring training, monitoring, fencing, restoring disturbed areas to pre-project conditions, avoiding the spread of invasive species, and compensating for the loss of habitat and protected trees.

Protected Trees

Construction of the proposed trail would result in the removal of trees. The project would also adversely affect trees by requiring tree trimming for equipment access and conducting ground-disturbing activities within the dripline of protected trees.

The number of trees removed and trimmed within Segments 1-2 has not been determined. These Segments would be constructed in the future; therefore, the size of trees and portions of trees overhanging the project footprint may differ from current conditions. The trees within Segments 1-2 are within riparian habitat and co-occur with elderberry shrubs.

Segments 3-6 of the proposed project would permanently affect (remove) 22 trees and temporarily affect (trim) approximately 72 additional trees located within the project footprint. All trees identified for removal are located within the valley foothill riparian vegetation community. Of the trees to be removed, four trees are protected under the City's Heritage Tree Ordinance (City of Sacramento Municipal Code 12.64.020), which protects trees of any species with a circumference of 100 inches or more; California native oak, buckeye, and sycamore trees with a circumference of 36 inches or greater; and/or trees of any species with a circumference of 36 inches or greater in a riparian zone. These trees include two black locust trees (with DBHs of 50 inches and 45 inches), one cork oak (DBH of 40 inches), and one Fremont cottonwood (DBH of 50 inches). Of these four trees, only the Fremont cottonwood is a native tree species.

During operations and maintenance, dead, dying, and hazard trees may be trimmed or removed.

Heritage trees and other trees identified for removal within the project footprint are owned by the City of Sacramento. As required by Section 12.64.050 of the City Code, the proposed tree removals would require City Council approval and the City Project Manager would need to provide written justification to the Director of the Parks and Recreation Department of the need to remove City trees for the public project.

Impacts related to protected trees would be significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-6, and 3-7** would reduce impacts to a **less-than-significant** level by requiring training, monitoring, fencing, restoring disturbed areas to pre-project conditions, and compensating for the loss of habitat and protected trees.

Special-status Plants

Based on the results of the April and June, 2017, and the March, 2018 botanical surveys, no special-status plants are present in the BSA. The BSA does not support potential habitat for any of the 16 special-status plants. There would be **no impact**.

Special-status Fish

The proposed project would require no in-water work and would not result in direct impacts to riverine habitat (American River). Construction activities would result in impacts to riparian habitat, however no riparian trees or shrubs located at or near the banks of the river would be removed. Therefore, the project would not result in the loss of shaded riverine aquatic habitat. There would be no direct impact related to special-status fish or fish habitat, including green sturgeon, Central Valley steelhead, Sacramento splittail, or Central Valley spring-run or fall/late-fall-run Chinook salmon. There would be no direct habitat effects, including to EFH for Chinook salmon or critical habitat for Central Valley steelhead and Chinook salmon. Indirect construction effects to habitat, EFH, and critical habitat for these species, including the potential for sediment or contaminants to affect the American River, would be potentially significant. Implementation of Mitigation Measures 3-1, 3-2, 3-3, and 3-7 would ensure that indirect construction impacts to the aquatic environment in the American River through siltation or contamination would be **less than significant** by requiring training, fencing, BMPs to avoid sediment transport, and restoring disturbed areas to pre-project conditions.

Valley Elderberry Longhorn Beetle

Elderberry shrubs are present and abundant within the BSA. There are various CNDDDB records within a 5-mile radius of the BSA and several elderberry shrubs within the BSA have exit holes on the stems which indicate that VELB is present within the BSA. The USFWS 2017 Framework states that if elderberry shrubs occur on or within 165 feet of the project area, adverse effects to VELB may occur as a result of project implementation. Therefore, surveys for VELB habitat (elderberry shrubs) were conducted within 165 feet of the project footprint. A total of 501 elderberry shrubs were identified within 165 feet of the project footprint.

Table 7 summarizes elderberry shrub impacts. The placement of the proposed project under Segments 1-2 Alternative 1 would result in the permanent removal of 22 elderberry shrubs (105 stems, 32 of which had exit holes). Segments 1-2 Alternative 2 would result in the permanent removal of 14 elderberry shrubs (88 stems, 16 of which had exit holes). Segments 3-6 would result in the permanent removal of 29 elderberry shrubs (114 stems, 22 of which had exit holes). Annual operations and maintenance along the trail would not result in the permanent loss (removal) of elderberry shrubs.

The placement of the proposed project under Segments 1-2 Alternative 1 would require trimming of an additional 2 elderberry shrubs (11 stems, 6 of which had exit holes), resulting in temporary impacts. Segments 1-2 Alternative 2 would require trimming of an additional 1 elderberry shrub (10 stems, 5 of which had exit holes). Segments 3-6 would result in the trimming of 48 elderberry shrubs (274 stems, 33 of which had exit holes). During trail maintenance in future years, temporary impacts would occur from trimming of up to 5 elderberry shrubs.

Although VELB were not observed during the 2018 surveys, one female VELB was observed during a previous survey of the project area on May 6, 2014 and the presence of exit holes in many of the shrubs indicates that VELB occupy the riparian habitat in the BSA. No critical habitat for VELB is located within the BSA. However critical habitat is located approximately 0.45 mile northeast of the VELB habitat (elderberry shrubs). Permanent impacts to VELB habitat (elderberry shrubs) would occur from removal of elderberry shrubs during construction of the proposed trail. Temporary impacts would occur as a result of vegetation clearing, grubbing, or trimming required to provide construction crews and equipment access to the project, and as part of maintenance from clearing debris, removing hazard vegetation, and mowing. **Table 8** summarizes impacts to VELB habitat.

Segments 1-2 Alternative 1 would result in the permanent removal of approximately 0.95 acre of VELB, riparian, and mixed scrub habitat. Segments 1-2 Alternative 2 would result in the permanent removal of approximately 0.97 acre. Segments 3-6 would result in the permanent removal of approximately 0.92 acre. No permanent impacts would occur as a result of maintenance activities.

Maintenance activities would trim vegetation that grows to overhang the trail and results in a hazard to cyclists. Additionally, maintenance would include work within 165 feet of riparian habitat, mixed scrub habitat, and the elderberry shrubs within that habitat. Maintenance activities may temporarily affect up to 0.205 acre (approximately 5 elderberry shrubs). This acreage is included in the temporary impact acreage presented for construction in **Table 8** but would occur later in time. These maintenance areas correspond with (are the same as) the temporary loss area described above for construction.

TWO RIVERS TRAIL – PHASE II (K15125000)
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Item	Number of Shrubs	Number of Stem(s) (by Diameter) (inches)			Total number of Stems	Number of Exit Holes in Stem(s) (by Diameter) (inches)			Total number of Stems with Exit Holes	
		1" - 3"	3" - 5"	>5"		1" - 3"	3" - 5"	>5"		
Segments 1-2 Alternative 1	Shrubs with stems 1 inch or greater to be trimmed	2	5	1	5	11	5	0	1	6
	Shrubs with stems 1 inch or greater to be removed	22	43	33	29	105	2	11	19	32
Segments 1-2 Alternative 2	Shrubs with stems 1 inch or greater to be trimmed	1	5	1	4	10	5	0	0	5
	Shrubs with stems 1 inch or greater to be removed	14	43	24	21	88	2	3	11	16
Segments 3-6	Shrubs with stems 1 inch or greater to be trimmed	48	196	47	31	274	6	11	16	33
	Shrubs with stems 1 inch or greater to be removed	29	63	23	28	114	5	7	10	22
Maintenance¹	Shrubs with stems 1 inch or greater to be trimmed	5	5	-	-	-	-	-	-	-

Note:
¹ Actual maintenance impacts are unknown. Impacts from maintenance are assumed to be 5 shrubs and 5 1-3" stems.

Habitat Type	Direct Impacts to Potential Habitat					
	Permanent (acres)			Temporary (acres)		
	Segments 1-2 Alt. #1	Segments 1-2 Alt. #2	Segments 3-6	Segments 1-2 Alt. #1	Segments 1-2 Alt. #2	Segments 3-6
Mixed Scrub	0.35	0.37	0.12	0.23	0.22	0.03
Valley Foothill Riparian	0.60	0.60	0.80	0.05	0.05	1.75
Total	0.95	0.97	0.92	0.28	0.27	1.78

The project would result in significant temporary and permanent impacts to VELB and VELB habitat. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, and 3-12**, would reduce

impacts to a **less-than-significant** level by requiring training, monitoring, fencing, restoring disturbed areas to pre-project conditions, compensating for the loss of habitat, constructing outside sensitive seasons, and controls on dust, herbicides, and mowing near shrubs.

Western Pond Turtle

Potential aquatic and upland habitat for western pond turtle is present within the BSA. If western pond turtles are present within the project footprint during construction, the movement of equipment within the project footprint could crush pond turtles or nests containing eggs or young. The project would result in a permanent impact of approximately 0.60 acre in Segments 1-2 (Alternative 1 or 2) and 0.80 acre in Segments 3-6, and a temporary impact of approximately 0.05 acre in Segments 1-2 and 1.75 acres in Segments 3-6 of potential upland western pond turtle habitat (Valley foothill riparian habitat). Impacts to western pond turtle would be potentially significant. Implementing **Mitigation Measures 3-1 through 3-4, 3-7, 3-13, and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, restoring disturbed areas to pre-project conditions, water quality BMPs, providing escape ramps during trenching, and preconstruction surveys to avoid the species.

Burrowing Owl

Removal of vegetation within the project footprint could directly affect burrowing owl, if present. Additionally, noise associated with construction and maintenance activities and vegetation removal involving heavy equipment operation that occurs during the breeding season (generally from February to March) could disturb nesting burrowing owl if an active nest is located near these activities. Vegetation removal and soil disturbance could result in alteration of burrowing owl nesting or foraging habitat. Segments 1-2 Alternative 1 would result in a permanent impact of approximately 1.56 acres in Segments 1-2 and a temporary impact of approximately 1.17 acres to annual grasslands in the BSA. Segment 1-2 Alternative 2 would result in a permanent impact of approximately 1.69 acres and temporary impact of approximately 0.81 acre to annual grasslands in the BSA. Segments 3-6 would result in a permanent impact of approximately 3.72 acres and a temporary impact of approximately 7.28 acres to annual grasslands in the BSA. No additional acreage is anticipated to be affected by operations and maintenance activities. Impacts to burrowing owl would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9 and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, and preconstruction surveys to avoid the species.

Swainson's Hawk

Segments 1-2 Alternative 1 would result in a permanent impact to approximately 1.56 acres of annual grassland habitat and approximately 0.58 acre of ruderal habitat which could be used by Swainson's hawk as foraging habitat. Segments 1-2 Alternative 2 would result in a permanent impact to approximately 1.69 acres of annual grassland habitat and approximately 0.72 acre of ruderal habitat which could be used by Swainson's hawk as foraging habitat. Segments 3-6 would result in a permanent impact to approximately 3.72 acres of annual grassland habitat and approximately 0.83 acre of ruderal habitat which could be used by Swainson's hawk as foraging habitat. However, the habitat affected by the project is disturbed, fragmented, and set in an urban area, providing low-quality habitat for Swainson's hawk.

Suitable large trees within the Valley foothill riparian habitat along the American River within the BSA could provide nesting habitat for Swainson's hawk. Segments 1-2 (Alternative 1 or 2) would result in a permanent impact to approximately 0.60 acre and a temporary impact of approximately 0.05 acre of Valley foothill riparian habitat which could provide nesting habitat for Swainson's hawk. Segments 3-6 would result in a permanent impact to approximately 0.80 acre and a temporary impact of approximately 1.75 acres of Valley foothill riparian habitat which could provide nesting habitat for Swainson's hawk. No additional acreage is anticipated to be affected by maintenance activities.

Noise associated with construction activities involving heavy equipment operation that occurs during the breeding season (generally between March 1 and August 31) could disturb nesting Swainson's hawk if an active nest is located near these activities. Within urban areas, CDFW considers 0.25 mile to be a sufficient buffer to avoid disturbance of nesting Swainson's hawks (CDFW 1994).

Impacts to Swainson's hawk would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9, 3-14, and 3-15** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, preconstruction surveys to avoid the species, and avoiding loss of nests.

White-tailed Kite

Segments 1-2 Alternative 1 would result in a permanent impact to approximately 1.56 acres of annual grassland habitat and approximately 0.58 acre of ruderal habitat which could be used by white-tailed kite as foraging habitat. Segments 1-2 Alternative 2 would result in a permanent impact to approximately 1.69 acres of annual grassland habitat and approximately 0.72 acre of ruderal habitat which could be used by white-tailed kite as foraging habitat. Segments 3-6 would result in a permanent impact to approximately 3.72 acres of annual grassland habitat and approximately 0.83 acre of ruderal habitat which could be used by white-tailed kite as foraging habitat. No additional acreage is anticipated to be affected by operations and maintenance activities. However, the habitat affected by the project is disturbed, fragmented, and set in an urban area, providing low-quality habitat for white-tailed kite.

Suitable large trees within the Valley foothill riparian habitat along the American River within the BSA could provide nesting habitat for white-tailed kite. Segments 1-2 (Alternative 1 or 2) would result in a permanent impact to approximately 0.60 acre and a temporary impact of approximately 0.05 acre of Valley foothill riparian habitat which could provide nesting habitat for white-tailed kite. Segments 3-6 would result in a permanent impact to approximately 0.80 acre and a temporary impact of approximately 1.75 acres of Valley foothill riparian habitat which could provide nesting habitat for white-tailed kite. No additional acreage is anticipated to be affected by operations and maintenance activities.

Noise associated with construction activities involving heavy equipment operation that occurs during the breeding season (generally between February 1 and August 31) could disturb nesting white-tailed kite if an active nest is located near these activities. Within urban areas, CDFW considers 0.25 mile to be a sufficient buffer to avoid disturbance of nesting white-tailed kites (CDFW 1994).

Impacts to white-tailed kite would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9, and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, and preconstruction surveys to avoid the species.

Bald Eagle

No riverine habitat would be directly impacted by construction activities. Construction-related soil disturbance could indirectly result in temporary impacts to water quality in aquatic foraging habitat for bald eagle in the watershed.

Suitable large trees within the Valley foothill riparian habitat along the American River within the BSA could provide nesting habitat for bald eagle. Segments 1-2 (Alternative 1 or 2) would result in a permanent impact to approximately 0.60 acre and a temporary impact of approximately 0.05 acre of Valley foothill riparian habitat which could provide nesting habitat for Bald eagle. Segments 3-6 would result in a permanent impact to approximately 0.80 acre and a temporary impact of approximately 1.75 acres of Valley foothill riparian habitat which could provide nesting habitat for Bald eagle. No additional acreage is anticipated to be affected by operations and maintenance activities.

Noise associated with construction activities involving heavy equipment operation that occurs during the breeding season (generally between February 1 and August 31) could disturb nesting bald eagle if an active nest is located near these activities. Within urban areas, CDFW considers 0.25 mile to be a sufficient buffer to avoid disturbance of nesting bald eagle.

Impacts to bald eagle would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-3, 3-4, 3-7, 3-9, and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training,

monitoring, water quality BMPs, fencing, dust control, restoring disturbed areas to pre-project conditions, and preconstruction surveys to avoid the species.

Other Protected Birds and Raptors

Removal of trees and shrubs within the project footprint could directly affect nesting birds. Additionally, noise associated with construction or maintenance activities involving heavy equipment operation that occurs during the breeding season (generally between March 1 and August 31) could disturb nesting birds and raptors if an active nest is located near these activities.

Impacts to other protected birds and raptors, including song sparrow, purple martin, least Bell's vireo, and other migratory birds, would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9, and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, and preconstruction surveys to avoid the species.

Ringtail

Potential foraging and den habitat for ringtail occurs within large trees in the riparian woodland habitat in the BSA. Forage that is present includes berries from Himalayan blackberry, insects, and small vertebrate prey such as mice or lizards. Other food sources available in the BSA include mistletoe (*Viscum album*) and other berry producing vegetation is present but is not abundant. Although this species may avoid urban areas, the BSA is located along an expansive riparian corridor which could be used by ringtail to pass through the area to different locations along the American and Sacramento River.

Ringtail are nocturnal and would not likely be foraging in the project footprint during daylight hours. However, because the project area includes potential den and foraging habitat for ringtail, and the area could be used by ringtail as a movement corridor, project-related construction or maintenance activities and related noise could cause short-term, temporary disturbance to ringtail, or could have a direct permanent effect on ringtail through removal of mature trees and riparian vegetation that could represent potential foraging and/or den habitat for this species.

Impacts to ringtail would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9, and 3-13** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, and escape ramps or covers for trenches.

Roosting Bats

The project may have a direct permanent effect on bats through removal of mature trees that could support roosting bat colonies. Additionally, noise associated with construction or maintenance activities involving heavy equipment operation could disturb roosting bats if a roosting colony is located near these activities.

Impacts to bats, including western red bats, would be potentially significant. Implementing **Mitigation Measures 3-1, 3-2, 3-4, 3-7, 3-9, and 3-14** would reduce these impacts to a **less-than-significant** level by requiring training, monitoring, fencing, dust control, restoring disturbed areas to pre-project conditions, and preconstruction surveys to avoid the species.

Waters of the U.S. and State

USACE has not determined the OHWM of the American River in the project vicinity. If the USACE determines that the OHWM of the American River extends into the project footprint, the project would have a potentially significant impact related to waters of the U.S. and State. Implementing **Mitigation Measures 3-1 through 3-4 and 3-16** would reduce this impact to a **less-than-significant** level by requiring training, fencing, BMPs to avoid sediment transport, restoring disturbed areas to pre-project conditions, obtaining a jurisdictional determination or preliminary jurisdictional determination from USACE, and purchasing credits to ensure that the project would not result in a net loss of Waters of the U.S. and State.

Mitigation Measures

Mitigation Measure 3-1: Conduct Worker Environmental Awareness Training Program Regarding Special-status Species and Sensitive Habitats prior to Construction.

The City will implement the following actions before and during construction activities:

Before any work occurs in the proposed project footprint, including grading and equipment staging, all construction personnel shall participate in an awareness training program (Worker Environmental Awareness Training Program [WEAP]) regarding special-status species and sensitive habitats present in the project limits. The training shall describe sensitive resources (i.e., waters of the U.S. and state, riparian habitat, special-status species and habitat, nesting birds/raptors) to be avoided during project construction and applicable permit conditions identified by state and federal agencies to protect these resources. If new construction personnel are added to the project, they must receive the mandatory training before starting work. After being trained, each construction person shall sign-in to document they received the training.

Responsible Party: City of Sacramento

Timing: Before and During Construction

Mitigation Measure 3-2: Install Temporary Fencing Around Environmentally Sensitive Habitat

Before any ground-disturbing activity occurs within the project footprint, the City shall ensure that temporary construction barrier fencing, silt fencing, and/or flagging is installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests to be avoided), as appropriate. Construction/maintenance personnel and construction/maintenance activity shall avoid fenced environmentally sensitive areas. The exact location of the fencing and/or flagging shall be determined by the resident engineer coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. No ground disturbance or vegetation removal activity shall be allowed until this condition is satisfied. The fencing/flagging shall be checked regularly and maintained until all work is complete. For construction, any required barrier or sediment fencing and a note reflecting this condition shall be shown on the final construction documents.

Responsible Party: City of Sacramento

Timing: Before and During Construction

Mitigation Measure 3-3: Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention and Control Plan, and Associated Best Management Practices.

The City shall require that the construction contractor implement the following BMPs to protect water quality within the American River.

- Conduct ground-disturbing activities adjacent to the American River during the low-flow period (generally between June 1 and October 15).
- Install sediment fencing, fiber rolls, or other equivalent erosion and sediment control measures between the designated work area and the American River, as necessary, to ensure that construction debris and sediment does not inadvertently enter the drainage. The City shall also cover or otherwise stabilize all exposed soil 48 hours prior to potential precipitation events of greater than 0.5 inch.
- Immediately after trail construction is complete, all exposed soil shall be stabilized. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix, planting native plants and placement of rock.

- No refueling, storage, servicing, or maintenance of equipment shall take place within 100 feet of waters of the U.S. and State.
- All machinery used during construction of the project shall be properly maintained and cleaned to prevent spills and leaks that could contaminate soil or water.
- Any spills or leaks from construction equipment (i.e., fuel, oil, hydraulic fluid, and grease) shall be cleaned up in accordance with applicable local, state, and/or federal regulations.
- Tightly woven fiber netting (no monofilament netting) or similar material shall be used for erosion control or other purposes within the project footprint to ensure that wildlife are not trapped. This limitation shall be communicated to the contractor through the special provisions included in the bid solicitation package. Coconut coir matting and burlap-containing fiber rolls are an example of acceptable erosion control materials.
- Before any construction-related ground-disturbing activities, the City shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP; as required under the SWRCB's General Construction Permit Order 2009-0009-DWQ [and as amended by most current order(s)]) or a Water Pollution Control Plan (WPCP), as applicable, that includes erosion control measures and construction waste containment measures to ensure that waters of the State are protected during and after project construction. The Plan (a SWPPP or WPCP) shall include site design to minimize offsite storm water runoff that might otherwise affect adjacent waters of the U.S. and State.

The Plan (a SWPPP or WPCP) shall be prepared with the following objectives: (a) to identify pollutant sources, including sources of sediment, that may affect the quality of storm water discharges from the construction of the proposed project; (b) to identify BMPs to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the project during construction; (c) to outline and provide guidance for BMP monitoring; (d) to identify proposed project discharge points and receiving waters; to address post-construction BMP implementation and monitoring; and (f) to address sedimentation, siltation, and turbidity.

The SWPPP or WPCP shall also include a spill prevention, control, and countermeasure plan, and applicable hazardous materials business plans, and shall identify the types of materials used for equipment operation (including fuel and hydraulic fluids), and measures to prevent, and materials available to clean up, hazardous material and waste spills. The SWPPP or WPCP shall also identify emergency procedures for responding to spills.

Responsible Party: City of Sacramento

Timing: Before and During Construction

Mitigation Measure 3-4: Return Temporarily Disturbed Areas to Pre-Project Conditions

All temporarily disturbed areas shall be returned to pre-project conditions within one year following completion of construction/maintenance. These areas shall be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Responsible Party: City of Sacramento

Timing: During and After Construction

Mitigation Measure 3-5: Avoid the Spread of Invasive Plant Species

The following mitigation measures shall be implemented, as appropriate, to avoid the spreading of invasive plant species throughout the project site during construction and maintenance activities, particularly in riparian areas:

- All hay, straw, hay bales, straw bales, seed, mulch, or other material used for erosion control or landscaping on the project site, and all material brought to the site, including rock, gravel, road base, sand, and top soil, shall be free of noxious weed seeds and propagules. Noxious weeds are defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds. (Food and Agriculture Code, Sections 6305, 6341 and 6461)
- All equipment brought to the project site for construction shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds. (Food and Agriculture Code, Section 5401)

Responsible Party: City of Sacramento

Timing: During Construction and Maintenance Activities

Mitigation Measure 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees

In accordance with policies stated in the City's General Plan, to compensate for the permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio (e.g., 1 acre planted for every 1 acre removed). The replacement plantings shall consist of a variety of native tree species that occur within the riparian vegetative community along the American River corridor such as live oak, Fremont cottonwood, Oregon ash, boxelder, white alder, arroyo willow, and native shrub species such as narrowleaf willow, California rose, and California blackberry. No long-term management of landscaping or watering beyond that needed to initially establish the plants is anticipated to occur.

If an onsite or offsite City-responsible mitigation site is used, the City shall accomplish riparian habitat compensation by implementing the following: after completion of the trail design, the City shall total the number, type, and size of all trees and shrubs to be removed and prepare a planting plan that identifies the location of the riparian mitigation plantings and the number, type, and size of plants. The planting plan shall also describe the irrigation and maintenance required to establish and monitor the planting area. Mitigation plantings will be completed between October 15 and December 31 of the year immediately following when impacts occur. All mitigation plantings will be monitored for 3 years. The survival goals established by CDFW will be adhered to, and if the goals are not met, then the City will be responsible for installing replacement plantings. Replacement plants shall be monitored with the same survival and growth requirements for 3 years following planting. The City will be responsible for planting, replanting, watering, weeding, invasive exotic eradication, and any other practice needed to ensure this goal. An annual status report on the mitigation will be provided to CDFW by December 31 of each year. The report will include the survival, percent cover, and height of both tree and shrub species. The number by species of plants and trees replaced, and overview of the re-vegetation effort, and the method used to assess these parameters will also be included. Photographs of the mitigation area will also be included. To ensure success of the mitigation plantings, the City shall prepare and implement an adaptive management plan that identifies specific monitoring tasks, success criteria, and reporting requirements.

If mitigation bank credits are purchased, the credits must be purchased at a CDFW-approved site.

Responsible Party: City of Sacramento

Timing: At the Completion of Construction Activities

Mitigation Measure 3-7: Monitor During Ground Disturbance and Vegetation Removal

A qualified biological monitor shall be present during all project activities requiring ground disturbance or vegetation removal within the construction area and shall make weekly monitoring visits to construction/active maintenance areas occurring in or adjacent to environmentally sensitive habitat areas, (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests). The biologist shall be responsible for ensuring that the contractor maintains the fencing/flagging protecting sensitive biological resources. Additionally, the biologist shall assist the City and the construction crew in complying with all proposed project implementation restrictions and guidelines as needed.

Vegetation less than 3 inches in diameter shall be cleared by hand or small engine weed-eaters or chainsaws. Small material or grasses shall be mowed close to ground with low impact rubber-tired tractors. Vegetation over 3 inches in diameter may require larger equipment such as telescoping chainsaws, hoe-mounted flail mowers, bucket machines to hoist crews and equipment, and crews climbing with chainsaws.

To qualify for approval from the USFWS, the biological monitor must be a biologist with demonstrated knowledge of VELB natural history, ecology, and identifying characteristics, as well as demonstrated field experience identifying other listed species. The monitor will be approved by the Sacramento USFWS Office in writing prior to the start of any ground-disturbing activities.

Responsible Party: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 3-8: Avoid Construction Activities within 165 feet of Elderberry Shrubs During Valley Elderberry Longhorn Beetle Flight Season

As much as feasible, all construction activities that could occur within 165 feet (50 meters) of an elderberry shrub, will be conducted outside of the flight season of the VELB (March - July).

Responsible Party: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 3-9: Implement Dust Control Measures

The City shall require that the construction contractor implement dust-control measures during all construction activities. These measures may include application of water to graded and disturbed areas that are un-vegetated. To avoid attracting Argentine ants, at no time shall water be sprayed within the driplines of elderberry shrubs).

Responsible Party: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 3-10: Prohibit Use of Herbicides and Mowing near Elderberry Shrubs

The City shall prohibit the contractor from using insecticides, herbicides, fertilizers, or other chemicals within 95 feet of elderberry shrubs. The City shall prohibit the contractor from conducting mechanical weed removal within the drip-line of the elderberry shrub during the season when adults are active (February - August) and will avoid damaging the elderberry.

Responsible Party: City of Sacramento

Timing: During Construction and Maintenance Activities

Mitigation Measure 3-11: Compensate for the Permanent Removal and Temporary Disturbance of Valley Elderberry Longhorn Beetle Habitat

The City will purchase mitigation credits for impacts to potential valley longhorn elderberry beetle riparian and mixed scrub habitat in accordance with the USFWS 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (USFWS 2017). The City will coordinate with USFWS to determine the appropriate type and amount of compensatory mitigation for all unavoidable adverse impacts to VELB or its habitat.

Compensation for Permanent Loss of Habitat: Per the 2017 Framework, the USFWS recommends that the permanent loss of VELB habitat be replaced with habitat that is commensurate with the type (riparian or non-riparian) and amount of habitat lost. Suitable riparian habitat may be replaced, at a minimum of 3:1 for all acres that will be permanently impacted by the project (**Table 9**). The USFWS typically recommends that any shrub that will be adversely impacted by the project be transplanted to a USFWS-approved location.

Habitat Type	Compensation Ratio ¹	Approximate Direct Impacts to Potential Habitat					
		Approximate Permanent (acres) of Disturbance			Acres of Credits / Total Credit Purchase ²		
		Segments 1-2 Alt. 1	Segments 1-2 Alt. 2	Segments 3-6	Segments 1-2 Alt. 1	Segments 1-2 Alt. 2	Segments 3-6
Mixed Scrub	3:1	0.35	0.37	0.12	0.36 / 8.7	1.05 / 25.4	1.41 / 34.1
Valley Foothill Riparian		0.94	0.94	0.97	2.91 / 70.4	2.82 / 68.2	5.73 / 138.7
Total		1.29	1.09	1.29	3.27 / 79.1	3.87 / 93.7	7.14 / 172.8
Notes:							
¹ acre(s) of credit: acre(s) of disturbance							
² one credit (unit) = 1,800 square feet (0.041 acre)							

For the purpose of this analysis, both the Valley foothill riparian and mixed scrub community types were considered to be potential riparian habitat for this species. Therefore, the acres of disturbance to these two community types will be mitigated at the 3:1 ratio stated in the USFWS 2017 Framework (as shown in **Table 9**).

Temporary Loss of Valley Elderberry Longhorn Beetle Habitat: To appropriately compensate for all individual shrubs that will be impacted by the project, the City shall first consider the location of the plant (riparian or non-riparian) and the potential for the plant to be occupied by VELB (exit holes present, likely occupied). For direct effects to individual shrubs, the City may consider replacing habitat based on the amount of effects that occur, the location of the shrub (riparian or non-riparian), and the presence of exit holes (non-riparian only). Impacts to individual shrubs in riparian areas may be replaced by the purchase of 2 credits at an USFWS-approved bank for each shrub that will be trimmed regardless of the presence of exit holes.

For purposes of this analysis, impacts to individual elderberry shrub that result from temporary trimming activities were considered as riparian, and therefore would be mitigated at the 2:1 ratio stated in the USFWS 2017 guidelines. The number of elderberry shrubs requiring transplantation as shown in **Table 10** are included in the amounts described in Mitigation Measure 3-12: Transplant Elderberry Shrubs.

Table 10. Valley Elderberry Longhorn Beetle Shrub-level Impact Ratios					
	Habitat	Compensation Ratio	# of Shrubs to be Trimmed	Compensation	Total Credit Purchase ²
Segments 1-2 Alternative 1	Riparian	2:1	2	Transplant the shrub + 2:1 compensation	2 shrubs transplanted + 4 credits
Segments 1-2 Alternative 2	Riparian	2:1	1	Transplant the shrub + 2:1 compensation	1 shrub transplanted + 2 credits
Segments 3-6	Riparian	2:1	47	Transplant the shrub + 2:1 compensation	47 shrubs transplanted + 94 credits
	Non-Riparian	1:1	1	Transplant the shrub + 1:1 compensation	1 shrub transplanted + 1 credits
Maintenance	Riparian	2:1	5	Transplant the shrub + 2:1 compensation	5 shrubs transplanted + 10 credits
Notes: ¹ number of credits: number of shrubs trimmed ² one credit (unit) = 1,800 square feet (0.041 acre)					

Responsible Party: City of Sacramento

Timing: Prior to Completing Construction Activities

Mitigation Measure 3-12: Transplant Elderberry Shrubs

USFWS recommends that all loss of elderberry longhorn beetle habitat be replaced with habitat that is commensurate with the type and amount lost under the following conditions:

- If the elderberry shrub cannot be avoided.
- If indirect effects will result in the death of stems or the entire shrub.

If the shrub can be avoided, and indirect effects will not result in the death of the entire shrub, individual shrub-level impact compensation is recommended. Placement of the proposed project under Segments 1-2 Alternative 1 would result in temporary impacts (trimming) to 2 elderberry shrubs requiring both to be transplanted according to the 2017 Framework. Segments 1-2 Alternative 2 would result in temporary impacts (trimming) to 1 elderberry shrub (Table 4-4), requiring one to be transplanted according to the 2017 Framework. Segments 3-6 would result in temporary impacts (trimming) to 48 shrubs (Table 4-4), requiring 48 shrubs to be transplanted according to the 2017 Framework. Operations and maintenance would potentially impact up to 5 shrubs throughout all segments (Table 4-4), requiring 5 additional shrubs be transplanted.

Removal of entire elderberry plants without disturbance to the surrounding habitat is uncommon but may occur. The removal may either include the roots or just the removal of the aboveground portion of the plant. When possible, the City shall attempt to remove the entire root ball and transplant the shrub. To minimize the fragmentation of VELB habitat, the City will relocate elderberry shrubs as close as possible to their original location. Elderberry shrubs may be relocated adjacent to the project footprint if: 1) the planting location is suitable for elderberry growth and reproduction; and 2) the City is able to protect the shrub and ensure that the shrub becomes reestablished. If these criteria cannot be met, the shrub may be transplanted to an appropriate USFWS-approved mitigation site.

Any elderberry shrub that is unlikely to survive transplanting because of poor condition or location, or a shrub that would be extremely difficult to move because of access limitations, may not be appropriate for transplanting. The following transplanting guidelines may be used by the City:

- Monitor - A qualified biologist will be on-site for the duration of transplanting activities to assure compliance with avoidance and minimization measures and other conservation measures.
- Exit Holes - Exit-hole surveys will be completed immediately before transplanting. The number of exit holes found, global positioning system (GPS) location of the plant to be relocated, and the GPS location of where the plant is transplanted will be reported to the USFWS and to the CNDDB.
- Timing - Elderberry shrubs will be transplanted when the shrubs are dormant (November through the first two weeks in February) and after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the shrub and increase transplantation success.
- Transplanting Procedure - Transplanting will follow the most current version of the ANSI A300 (Part 6) guidelines for transplanting (<http://www.tcia.org/>).
- Trimming Procedure - Trimming will occur between November and February and should minimize the removal of branches or stems that exceed 1 inch in diameter. (USFWS 2017)

Responsible Party: City of Sacramento

Timing: Before and During Construction Activities

Mitigation Measure 3-13: Provide Escape Ramps or Cover Open Trenches

To avoid entrapment of wildlife, all excavated steep-walled holes or trenches more than two feet deep will be provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each workday. If escape ramps cannot be provided, then holes or trenches will be covered with plywood or similar materials. Providing escape ramps or covering open trenches will prevent injury or mortality of wildlife resulting from falling into trenches and becoming trapped. The trenches will be thoroughly inspected for the presence of federally listed species at the beginning of each workday. Any species observed shall be allowed to voluntarily move outside of the work area on its own.

Responsible Party: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 3-14: Conduct Preconstruction Surveys

Western Pond Turtle: A qualified biologist shall conduct a preconstruction clearance survey for western pond turtles within 48 hours prior to any ground disturbance within the project footprint. Any western pond turtles found within the construction work area shall be allowed to voluntarily move out of this area or shall be captured and held by a qualified biologist for the minimum amount of time necessary to release them into suitable aquatic habitat outside the construction work area. If a western pond turtle nest containing eggs or young is identified within the construction work area, the biologist shall consult with CDFW to determine an appropriate no-disturbance buffer to ensure avoidance of the nest.

Burrowing Owl: A qualified biologist shall conduct a preconstruction survey to locate any active burrowing owl burrows within the BSA or within a 500-foot-wide buffer around the BSA, if feasible. The preconstruction survey shall be conducted in accordance with recommendations provided in CDFW's Staff Report on Burrowing Owl Mitigation (CDFW 2012) and no more than 14 days before the start of construction activities. If no burrowing owls or burrows exhibiting burrowing owl use (i.e., whitewash, owl pellets, feathers, or egg fragments) are detected, then construction may proceed. Preconstruction

surveys must be reinitiated if more than 30 days lapse between the survey dates and construction or maintenance activities.

If active burrowing owls or occupied burrows are detected in the survey area, occupied burrows shall not be disturbed during the nesting season (generally February 1–August 31) or the wintering season (September 1–January 31). A no-disturbance buffer shall be established around the burrow to avoid disturbance of nesting burrowing owls until a qualified biologist, coordinating with CDFW, determines that the young have fledged and are foraging on their own. The extent of these buffers shall be determined by the biologist (coordinating with the CDFW) and shall depend on the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

Raptors/Nesting Birds: If construction/maintenance or vegetation removal occur during the breeding season for migratory birds and raptors (generally February through August), the City shall retain a qualified biologist to conduct a preconstruction nesting bird and raptor survey prior to the start of construction activities (including equipment staging). The preconstruction nesting bird and raptor surveys shall be conducted between February 1 and August 31 within suitable habitat within the designated project footprint. Surveys for raptors' nests shall also extend 250 feet from the project footprint to ensure that nesting raptors are not affected by construction disturbances. For raptor surveys outside the project footprint where property access has not been granted, the surveying biologist shall use binoculars to scan any suitable nesting substrate for potential raptor nests. The preconstruction survey shall be conducted no more than 14 days before the initiation of construction activities.

If an active bird or raptor nest is identified within the construction or maintenance work area or an active raptor nest is identified within 250 feet from the construction work area, a no-disturbance buffer shall be established around the nest to avoid disturbance of the nesting birds or raptors until a qualified biologist determines that the young have fledged and are foraging on their own. The extent of these buffers shall be determined by the biologist (coordinating with the CDFW) and shall depend on the species identified, level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. In addition to the establishment of buffers, other avoidance measures (determined during CDFW coordination) may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site. If no active nests are found during the preconstruction surveys, then no additional mitigation is required.

Bats: During April–September before construction begins, a qualified biologist will survey trees and structures within the project footprint and identify any snags, hollow trees, voids or other trees with cavities that may provide suitable roosting habitat for bats. If evidence of bat usage is observed, a focused species acoustic survey shall be performed to determine the presence and type of bat roost. If no suitable roosting trees are found or the acoustic survey findings are negative, construction may proceed. If bats are found or evidence of use by bats is present, the qualified biologist will work with the City and CDFW to implement measures to avoid or minimize disturbance. Avoidance measures may include excluding bats from the tree before their hibernation period (mid-October to mid-March) and before construction or maintenance begins.

Responsible Party: City of Sacramento

Timing: Before and During Construction Activities

Mitigation Measure 3-15: Avoid Loss of Swainson's Hawk Nests

For construction or maintenance activities (including vegetation removal and/or other ground disturbance) that need to be conducted during the breeding season (March 1 – July 31), Swainson's hawk surveys shall include all suitable nesting habitat within line of sight of construction activities within a 0.5-mile radius of the project site. One survey following the guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) shall be followed for surveys for Swainson's hawk.

If active Swainson's hawk nests are identified within the project area, preconstruction activity shall cease and CDFW will be contacted. If a Swainson's hawk nest is identified a no-disturbance buffer shall be established around the nest to avoid disturbance of the nesting Swainson's hawk until a qualified biologist determines that the young have fledged and are foraging on their own. The extent of these buffers shall be determined by the biologist (coordinating with the CDFW), level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. In addition to the establishment of buffers, other avoidance measures (determined during CDFW coordination) may include monitoring of the nest during construction and restricting the type of work that can be conducted near the nest site. If no active nests are found during the preconstruction surveys, then no additional mitigation is required.

Responsible Party: City of Sacramento

Timing: Before and During Construction Activities

Mitigation Measure 3-16: Obtain Preliminary Jurisdictional Determination and Compensate for Impacts to Waters of the U.S. and State

The City shall obtain a Jurisdictional Determination or Preliminary Jurisdictional Determination from the USACE. Based on the determination, the City shall finalize the acreage of impacts to Waters of the U.S. and State based on project footprint and USACE-verified OHWM. If no impacts would occur, no compensation is required. If impacts would occur, the City shall compensate for impacts to Waters of the U.S. and State by purchasing credits from a State Water Resources Control Board (SWRCB)-and/or USACE-approved mitigation bank at a minimum ratio of 1:1, or in-lieu fees shall be paid to a SWRCB- and/or USACE-approved fund at a 1:1 replacement ratio to ensure the project would not result in a net loss of Waters of the U.S. and State.

Responsible Party: City of Sacramento

Timing: Before Construction Activities

Mitigation Measure 7-2: Obtain Site Closure and Follow Post-Closure Requirements for Dellar Encroachment Area.

Mitigation Measure 7-2 is described in full in the Hazards section of this Initial Study document.

Findings

All additional significant environmental effects of the project relating to Biological Resources can be mitigated to a less-than-significant level.

CULTURAL RESOURCES

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
4. <u>CULTURAL RESOURCES</u>			
Would the project:			
A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5?		X	
B) Directly or indirectly destroy a unique paleontological resource?		X	
C) Adversely affect tribal cultural resources?		X	

Environmental Setting

The summary below is based on content previously presented in the Historic Property Survey Report of September 2018, including the Archaeology Survey Report appended to that document.

GEI conducted a records search on July 27, 2017, at the North Central Information Center in Sacramento, California. The records search area included the proposed project area and a 1-mile buffer zone. The records search revealed five previously identified cultural resources within the project area. These include four railway crossings and Levee Unit 118, Part 1 (also known as the American River South Levee). GEI also conducted pedestrian surveys on December 7 and 14, 2017, and January 19, 2018. The surveys were done to intensive standards, and no additional cultural resources were observed within the project area.

One historic-era (more than 45 years old) resource, Levee Unit 118 Part 1, is in the project area. The levee unit is assumed eligible for listing in the National Register of Historic Places for the purposes of this project and is therefore also considered a historical resource for the purposes of CEQA.

An overview of the environmental, ethnographic, and historic background of the project area is provided in the September 2018 Historic Property Survey Report. A shortened version of the project area background is below.

Prehistoric and Ethnographic Context

Archaeological research in the Central Valley has revealed almost 14,000 years of occupation, which has been organized into a chronology called the Archaic-Emergent System (Bennyhoff and Fredrickson 1969), built on the work of Lillard et al. (1939) and Beardsley (1948).

The earliest well-documented entry and spread of humans into California occurred at the beginning of the Paleo-Indian Period (13,500-8,000 B.P.). Little evidence from this period has been found in the Sacramento area, but sites typically include hunting implements such as fluted projectile points and chipped stone crescent forms. Social units are thought to have been small and highly mobile.

Human populations grew and occupied more diverse settings during the Middle Archaic Period (5,000-2,500 B.P.). Permanent villages were established, primarily along major waterways. Sedentary settlements led to more intensive subsistence strategies, including the introduction of acorn processing technology. By the Upper Archaic Period (2,500-1000 B.P.), increased population density led to status differentiations and sociopolitical complexity. Exchange systems become more complex and formalized. Evidence of regular, sustained trade between groups was seen for the first time.

During the Emergent Period (1,000 B.P. to Historic), socioeconomic complexity continued to develop, with extensive exchange networks, social status associated with acquired wealth, and increasing territorial

circumscription. The bow and arrow were introduced, replacing the atlatl. In the latter portion of this period (450-150 B.P.), the clamshell disk bead became a monetary unit for exchange and increasing quantities of goods moved greater distances. Specialists arose to govern various aspects of production and exchange.

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the City. Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for tribal cultural resources are located within close proximity to the Sacramento and American rivers and other watercourses.

The Two Rivers Trail project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. Valley Nisenan territory was divided into politically autonomous “tribelet” areas, each including several large villages (Kroeber 1925, Moratto 1984). Two important villages were located near the project area, on the south bank of the American River, *Momol*, to the west of the project area, and *Yalisumni*, to the east (Wilson and Towne 1978:388). Valley Nisenan people lived in small, domed houses (10–15 feet in diameter) covered with earth and tule or grass and followed a seasonal round of food gathering (Wilson and Towne 1978).

Euro-American contact with the Nisenan began with infrequent excursions by Spanish explorers and Hudson’s Bay Company trappers traveling through the Sacramento-San Joaquin Valley in the early 1800s (Wilson and Towne 1978). With the coming of Russian trappers, Spanish missionaries, and Euro-American settlers, traditional lifeways were threatened by competition for land and resources, and by the introduction of new diseases. The malaria epidemic of 1833 decimated the Valley Nisenan population, killing an estimated 75 percent of the population. The influx of Euro-Americans during the Gold Rush-era further reduced the population due to forced relocations and violent retribution from the miners for real or imagined affronts (Madley 2016).

Despite these major and devastating historical setbacks, today many Native Americans in the proposed project area are maintaining traditional cultural practices. Sometimes supported by thriving business enterprises, Tribal groups maintain governments, historic preservation programs, education programs, cultural events, and numerous other programs that sustain a vibrant culture (Johnson 2018).

Historic Context

City of Sacramento

The City of Sacramento—named after the river that runs beside it—was built on 4 square miles of John Sutter’s New Helvetia land grant in 1849 and officially incorporated in 1850 (McGowan and Willis 1983:21, 28). Sacramento served as an important gateway to California’s gold fields during the Gold Rush years. By 1854, Sacramento had grown and matured as a city and secured the title of state capitol (McGowan and Willis 1983:49, 51–52). In 1861, the Central Pacific Railroad (CPRR) formed and groundbreaking for the transcontinental railroad commenced in 1863 in downtown Sacramento. The CPRR had a tremendous impact on Sacramento’s economy as people were enticed to come to the region by the cheap rail fare and promise of rich agricultural land. The railroad also enabled easier transport of materials and goods from nearby communities to markets throughout the U.S. (McGowan and Willis 1983:56, 59).

Residential development continued into the early 20th century, slowing down only briefly during the Great Depression and World War II. Following World War II, the local economy boomed as the region adjusted to a post-war economy. Development spilled into the surrounding areas as the suburban lifestyle became more appealing to homeowners. In December 1964, the city merged with North Sacramento. Throughout the 1970s and 1980s, improvements were made to the area’s infrastructure and roads (Page & Turnbull 2013: 6.3-16). Sacramento continues to grow in the present day as its suburbs expand to keep pace with an ever-increasing population.

Flood Management

The California Legislature tried to coordinate a levee system and control levee construction by creating the Swamp Land Commission in 1861. The Commission gave California drainage districts the power to

construct levees. It would become the responsibility of state engineers to design the levees for each district. By the end of 1861, there were 28 drainage districts in the Sacramento and San Joaquin Valleys and the San Francisco Bay-Delta. The California Legislature enhanced the levee district powers in 1864, which spurred additional levee construction (O'Neill 2006:81).

Captain Thomas Jackson of the USACE came to California in 1905 and began studying Sacramento's rivers. He understood that there was a linkage between the mining debris, making the river navigable, and flood control. Jackson undertook a comprehensive flood management plan for the Sacramento Valley. In 1910, Jackson's plan, known as the Jackson Report became the foundation for the Sacramento River Flood Control Project (SRFCP) (Russo 2010:20; Kelley 1989:278, 280).

During the first half of the 20th century, Congress passed a handful of flood control acts, including the Flood Control Acts of 1917, 1928, 1936, and 1941. The Flood Control Committee was tasked with regulating and controlling the flood waters of the United States through levees, land reclamation, swampland reclamation, and storage for water power. In 1933, USACE planned to raise and strengthen approximately 2.5 miles of the American River south bank levee, from the Sacramento River to approximately the foot of C Street in Sacramento. Before the improvements, the levee was very uneven in both the cross-section and height, but USACE did not expect to introduce a lot of new material to make the necessary improvements, which ARFCD partially funded (Drinkwater 1933:1).

The American River levees were upgraded to USACEs' standards in three stages. The levee protecting the City of Sacramento (Levee Unit 118, Part 1) was finished in 1948 as part of the SRFCP. The north bank levee, which was designed to protect the City of North Sacramento, also was constructed as part of the SRFCP and was completed in 1955. This levee extended from the high ground near present-day Cal Expo, downstream to the east bank of Natomas Canal. A non-project levee was constructed on the north bank of the American River from the eastern end of Arden Way, downstream to the H Street Bridge. At the time it was constructed, if the river overtopped the levee, it would have flooded a hop field. In 1956, USACE brought this levee up to its standards as part of the American River project levee; the improvements extended upstream to the Carmichael Bluffs (McClurg and Haupt 1991:1–2).

Paleontological Resources

Based on review of California Geological Survey (CGS) geologic mapping of the project area, the proposed project is located entirely within historic-period/modern alluvium levee and channel deposits (CGS 2018). Soils on the site consist of alluvium and historic-period and modern fill (see Section 5, "Geology and Soils") and have been heavily disturbed due to past excavation of fill for levee construction and to elevate city streets for flood prevention (along Segments 1-2) and levee construction (Segments 3-6).

By definition, to be considered a unique paleontological resource, a fossil must be more than 11,700 years old. Therefore, the historic-period and modern fill on the site are not considered to be paleontological sensitivity.

Standards of Significance

For purposes of this Initial Study, cultural resource impacts may be considered significant if construction and/or implementation of the proposed project would result in one or more of the following:

- Cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5; or
- Directly or indirectly destroy a unique paleontological resource; or
- A substantial adverse change in the significance of such resources.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort (Policy HCR 2.1.15).

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archaeological resources. (Impacts 4.4-1, 2).

Chapter 4.5 of the Master EIR evaluated the potential effects of development under the 2035 General Plan on paleontological resources among other issues related to geology, soils, and mineral resources. Implementation of General Plan Policy HCR 2.1.16, which requires that accepted protocols be adhered to if paleontological resources are discovered during excavation or construction, reduced effects related to paleontological resources to a less-than-significant level.

Answers to Checklist Questions

Question A

Built Environment Resources

Levee Unit 118 Part 1 (American River South Levee) is considered significant under National Register of Historic Places Criterion A within the context of flood management and for its association with the SRFCP. The period of significance begins in 1917, when U.S. Congress approved the Flood Control Act, marking the first comprehensive plan for flood management in California, and ends in 1968. An arbitrary 50-year cutoff was selected because per the National Park Service's bulletin *How to Complete the National Register Registration Form*, the significance period can continue when a resource has been in existence and continues to have importance and no specific date can be defined to end the period of significance (NPS 1997:42). Levee Unit 118 Part 1 is also considered to be a historical resource for the purposes of CEQA.

As designed, the proposed project's bike trail would be located primarily along the toe of the levee, with a portion of Segments 1 and 2 along the levee crown, and Segment 4 along the waterside levee slope. The proposed project would not alter the character-defining features of the levee (i.e. its compacted earth, slope, crown). The levee would retain its important aspects of integrity (location, materials, design, setting, feeling and association) that allow it to convey its historical significance as an important component of the SRFCP and flood management efforts in Sacramento. Therefore, the impacts to Levee Unit 118 Part 1 (American River South Levee) are considered **less-than-significant**.

Archaeological Resources

While no archaeological resources have been previously recorded within the project area, both ethnohistoric accounts and previously recorded sites nearby suggest that the project area is potentially sensitive for buried archaeological resources. To ascertain whether buried resources may be present within the project area, GEI archaeologists, Karen Gardner, RPA, Jesse Martinez, RPA, and Julie Sage conducted pedestrian surveys, to intensive standards, on December 7 and 14, 2017, and January 19, 2018, with negative results.

Native American consultation under CEQA and under Section 106 of the National Historic Preservation Act (NHPA) has been initiated and is on-going and is summarized in the Tribal Cultural Resources Section of this Initial Study.

A Limited Subsurface Testing Plan was implemented to test for buried resources in areas of significant ground disturbance. Because ground-disturbing activities in project segments 2, 5, and 6 would involve only

a ~12-inch degrade of the existing bench, no subsurface testing was recommended. Trail construction in segments 1 and 3, would also only require a ~12 inch degrade; however, a protective structure would be constructed in each of these segments, underneath and adjacent to the Union Pacific Railroad Bridges. The protective structures would be stabilized with posts set in footings up to 8 feet deep. Construction of segment 1 would be in a later phase of the project. Limited subsurface testing was recommended and completed in segment 3; results are summarized below. In segment 4, a bench would be constructed on the waterside levee slope, approximately 0.3 miles long, involving excavation of up to 4 to 5 feet into the levee slope. While this is a significant amount of ground disturbance, subsurface testing was not recommended, as testing within the levee prism is not permitted per USACE guidelines.

Subsurface testing in segment 3 was completed on August 31, 2018, and included digging six hand-augered holes, ranging between 73 and 190 cm deep. Depth was limited by the presence of river rocks. Results for all augers were negative for buried archaeological resources; however, there remains the possibility that a previously unknown archaeological resource could be discovered during project construction and inadvertently damaged, resulting in a potentially significant impact to an archaeological resource. Implementation of **Mitigation Measures 4-1a, 4-1b, and 4-1c** would reduce the potentially significant impact on any previously undiscovered unique archaeological resources to a **less-than-significant** level because the resources would be avoided and preserved in place or assessed and treated in accordance with appropriate professional standards.

Buried Human Remains

No human remains have been discovered in the project area and it is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during ground disturbance activities with the proposed project. However, should human remains, including those interred outside of formal cemeteries, be discovered during construction activities, the human remains could be inadvertently damaged. Therefore, this potential impact would be potentially significant. Implementation of **Mitigation Measures 4-1a, 4-1b, and 4-1c** would reduce the potentially significant impact on any previously undiscovered human remains to a **less-than-significant** level because the California Health and Safety Code (HSC) would be adhered to in the event human remains are discovered; non-Native American human remains would be treated in accordance with HSC Section 7000 (et seq.); and Native American human remains would be avoided and preserved in place or assessed and treated in accordance with appropriate professional standards in consultation with the Most Likely Descendant (MLD).

Question B

As discussed in Section 4.5, Geology, Soils, and Mineral Resources, of the General Plan Master EIR, the City of Sacramento (and thus the project alignment) is not considered sensitive for paleontological resources and the likelihood for finding paleontologically significant resources is very low. However, there remains the possibility during project-related ground-disturbing activities that a paleontological resource could be inadvertently affected, and thereby cause a substantial change in the significance of a unique paleontological resource. Therefore, the proposed project could result in potentially significant impacts on paleontological resources. Implementation of **Mitigation Measure 4-2** would reduce this potential impact to **less than significant** because construction workers would be alerted to the possibility of encountering paleontological resources and, should resources be discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

Mitigation Measures

Mitigation Measure 4-1a: Conduct Cultural Resources and Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities

The City shall require the contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program (WEAP) for all personnel involved in project construction, including field consultants and construction workers. The WEAP will be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology, as well as culturally affiliated Native American tribes. The City may invite Native American

representatives from interested culturally affiliated Native American tribes to participate. The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations.

The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

Responsibility: City of Sacramento

Timing: Before and During Construction Activities

Mitigation Measure 4-1b: In the Event that Cultural Resources or Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources.

If cultural resources or tribal cultural resources (such as Native American archaeological materials, sacred objects, unusual amounts of bone or shell, artifacts, or human remains and associated objects and materials) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources or tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid cultural resources or tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.
- Recommendations for avoidance of cultural resources or tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, considering factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes will be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of

protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.

- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an “Environmentally Sensitive Area”.

If a cultural resource or tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources- (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a cultural resource or tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City’s invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered Native American cultural resources or tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and considering ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a cultural resource or tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity considering Tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - Protect the cultural character and integrity of the resource.
 - Protect the traditional use of the resource.

- Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

Responsibility: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 4-1c: Implement Procedures in the Event of the Inadvertent Discovery of Human Remains.

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

Responsibility: City of Sacramento

Timing: During Construction Activities

Mitigation Measure 4-2: Avoid Potential Effects on Undiscovered Unique Paleontological Resources.

To minimize the potential for destruction of or damage to potentially unique, scientifically important paleontological resources during earthmoving activities, the City will implement the measures described below.

Before the start of construction activities, construction personnel involved with earthmoving activities (including the site superintendent) shall be informed of the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction activities, and proper notification procedures should fossils be encountered. This worker training may either be prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources or prepared and presented separately by a qualified paleontologist.

If paleontological resources are discovered during earthmoving activities, the construction crew shall notify the City and shall immediately cease work within 50 feet of the discovery. The City shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with

Society of Vertebrate Paleontology guidelines for impact mitigation (Society of Vertebrate Paleontology 2010). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

Responsibility: City of Sacramento

Timing: Before and During Construction Activities

Findings

All additional significant environmental effects of the project relating to Cultural Resources can be mitigated to a less-than-significant level.

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ENERGY

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
5. ENERGY Would the project: A) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation			X
B) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X

Standards of Significance

For the purposes of this Initial Study, an impact is considered significant if it would a) result in wasteful, inefficient, or unnecessary consumption of energy or natural resources during project construction or operation or b) conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR discussed energy conservation and relevant general plan policies in section 6.3 (page 6-3). The discussion concluded that with implementation of the general plan policies and energy regulation (e.g., Title 24) development allowed in the general plan would not result in the inefficient, wasteful or unnecessary consumption of energy.

See also Section 12, below, discussing impacts related to energy. The Master EIR concluded that implementation of state regulation, coordination with energy providers and implementation of general plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level.

Answers to Checklist Questions

Questions A and B

Project construction would be typical of trail construction practices. Construction would require use of equipment as described in Chapter 2, “Project Description.” There are no unusual features of the trail construction that would result in inefficient or unnecessary consumption of energy or obstruct implementation of plans related to energy. Operation of the trail would have no significant energy impacts, and potential for the trail to increase usage of bicycle and pedestrian transportation in nearby neighborhoods and the City could potentially reduce energy use. Impacts related to energy would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Energy.

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GEOLOGY AND SOILS

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>6. GEOLOGY AND SOILS Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?</p>		X	

Environmental Setting

Within the City of Sacramento and the Sacramento region, there are no known active faults. The Sacramento Valley has historically experienced low levels of seismic activity and does not contain any Alquist-Priolo Earthquake Fault Zones (CGS 2018a). Numerous earthquakes of magnitude (M) 5.0 or greater have occurred on regional faults in the Coast Ranges, approximately 38–55 miles west of downtown Sacramento. The nearest known active (Holocene or Historic) fault trace to the project study area is the Dunnigan Hills fault, approximately 25 miles northwest of downtown Sacramento (Jennings and Bryant 2010).

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey five soil map units are present within the project area (**Table 11**) (NRCS 1993, 2018). These soils exhibit a low shrink-swell potential, except for the deepest layers of the Columbia-Urban land complex, which occurs along a small portion of the westernmost end of Segment 4.

Soil Series Name and ID	Parent Material	Shrink-Swell Potential
117, Columbia sandy loam, drained, 0 to 2 percent slopes	Alluvium	Low
124, Columbia-Urban land complex, drained, 0 to 2 percent slopes	Alluvium	Low-High, depending on depth.
136, Dumps	N/A	N/A
203, Riverwash	Gravelly alluvium	N/A
205, Rossmoor-Urban land complex, 0 to 2 percent slopes	Alluvium	Low
Source: NRCS 1993, 2018		

Standards of Significance

For the purposes of this Initial Study, an impact is considered significant if it allows a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources, and paleontological resources in the City. Implementation of identified policies in the 2035 General Plan reduced all effects to a less-than-significant level. Policy EC 1.1.1 requires regular review of the City’s seismic and geologic safety standards, and Policy EC 1.1.2 requires geotechnical investigations for project sites to identify and respond to geologic hazards, when present.

Answers to Checklist Question

Regional topography of the area surrounding the lower American River consists of low rolling foothills, floodplain areas, and a relatively flat valley floor. Levees constructed on both sides of the American River and steep banks in some areas are the most significant topographic relief along the project alignment.

Seismicity

The project area is not located within an Alquist-Priolo Earthquake Fault Zone or in the immediate vicinity of an active fault. Surface fault rupture is most likely to occur on active faults (i.e., faults showing evidence of displacement within the last 11,700 years). Damage from surface fault rupture is generally limited to a linear zone a few yards wide. **Table 12** describes the proximity of the project site to local active and potentially active faults. The intensity of ground shaking caused by an earthquake at the Dunnigan Hills Fault is not expected to cause substantial damage to the project site, according to the *Probabilistic Seismic Hazard Assessment for the State of California*. However, the 2035 General Plan indicates that groundshaking would occur periodically in Sacramento due to distant earthquakes on any of the major regional faults.

Table 12. Regional Active and Potentially Active Faults		
Activity	Fault Name	Distance and Direction in Relation to Project Site
Historic	Green Valley Fault	45 mi W-SW
Historic	Rodgers Creek Fault	61 mi W-SW
Active	Dunnigan Hills	30 mi W-NW
Active	West Napa Fault	51 mi W-SW
Active	Concord Fault	55 mi SW
Potentially Active	Midland Fault	24 mi SW
Potentially Active	Bear Mountains Fault Zone – West	23 mi E
Potentially Active	Bear Mountains Fault Zone – East	28 mi E
Potentially Active	Maidu Fault	26 mi E
Potentially Active	Melones – West	33 mi E
Potentially Active	Melones – East	36 mi E
Source: CGS 2018b		

Earthquake Induced Liquefaction, Surface Rupture Potential, and Settlement

Portions of Sacramento, especially along streams and floodplains, are underlain by historic alluvial deposits that, in their present states, could become unstable during seismic ground motion. To reduce the primary and secondary risks associated with seismically induced groundshaking, it is necessary to take the location and type of subsurface materials into consideration when designing foundations and structures, including recreational and flood management facilities.

Preliminary geotechnical investigations for the project alignment have been completed by GEI Consultants (GEI 2017). Sampling of subsurface conditions have focused on Segments 4 and 6, where the proposed waterside bike trail could potentially impact levee performance. Subsurface conditions in Segments 4 and 6 were evaluated using draft subsurface profiles developed as part of the Department of Water Resources (DWR) Urban Levee Evaluation (ULE) for the American River study area (URS 2010). The subsurface data on the profiles consisted of geotechnical borings performed predominantly by USACE. Explorations were typically performed through the levee crown; however, several explorations were also performed at the landside levee toe or on waterside benches. The explorations range in depth, with the deepest explorations extending to about 85 feet. Review of the subsurface profiles indicated relatively consistent conditions throughout Segments 4 and 6. The subsurface was generally composed of a sandy levee overlying a medium to stiff fine-grained blanket, an upper silty sand aquifer, a lower gravelly/cobbles aquifer, and a deep, very stiff to hard fine-grained layer.

Past performance issues documented in the DWR ULE Supplemental Geotechnical Data Report (SGDR) for the American River study area (URS 2010) were reviewed to evaluate past performance of Segments 4 and 6 and to determine whether any prior levee instabilities had occurred within Segments 4 and 6. Available past performance records indicated a single past performance issue consisting of waterside erosion of the riverbank below the levee toe in Segment 4 (approximately Sta. 114+80 to Sta. 130+80 of the present project or DWR Sta. 1206+30 to Sta. 1222+30). No waterside slope instabilities or sloughs were documented. Existing improvements to the levees include a 75-foot-deep cutoff wall for the entire lengths of Segments 4 and 6 and placement of revetment in several locations (GEI 2017).

All trail improvements would be designed based on the results of ongoing, detailed geotechnical engineering studies (GEI 2017) and would be required to comply with standard engineering practices for trail and levee design. Preliminary geotechnical design criteria for the project were based on DWR Urban Levee Design Criteria (ULDC) (DWR 2012). The Central Valley Flood Protection Board's (CVFPB's) standards are the primary state standards applicable to levees in the project area; these are stated in Title 23, Division 1, Article 8, Sections 111–137 of the California Code of Regulations. The Board's standards direct that any modifications to existing levees (made to accommodate trail placement) be in accordance with EM 1110-2-1913 *Engineering Design and Construction of Levees* (USACE 2000), the primary Federal standards applicable to levee improvements. Because the design, construction, and maintenance of levee improvements must comply with the regulatory standards of USACE and CVFPB, it is assumed that the design and construction of all levee modifications to accommodate placement of the trail would meet or exceed applicable design standards for static and dynamic stability, seismic ground shaking, liquefaction, subsidence, and seepage.

Additionally, final designs would comply with California Uniform Building Code (UBC), which is based on the federal UBC but is more detailed and stringent. Chapter 18 of the California UBC, which regulates the excavation and construction of foundations, retaining walls, and embedded posts and poles, and also with UBC Appendix Chapter A33 which regulates grading activities, including drainage and erosion control, and construction on unstable soils, such as expansive soils (BSC 2016).

Based on an existing regulatory framework that addresses earthquake safety issues and requires adherence to requirements of the CBC and various design standards, seismically induced groundshaking and secondary effects would not be a substantial hazard in the project area. Additionally, this area is not mapped by CGS as lying within a known liquefaction or landslide hazard area (CGS 2018a).

Erosion

Construction activities would involve excavating, filling, moving, grading, and temporarily stockpiling soils onsite, which would expose site soils to erosion from wind and surface water runoff. The City has adopted standard measures to control erosion and sediment during construction and all projects in the City are required to comply with the City's Standard Construction Specifications for Erosion and Sediment Control. The proposed project would comply with the City's standards set forth in the "Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control." The project would comply with the City's grading ordinance, which specifies construction standards to minimize erosion and runoff (City of Sacramento 2018).

Because the proposed project would be required to comply with federal, state, and local construction standards, it would not expose people or structures to the risk of loss, injury, or death. However, per City requirements (2035 Master EIR Policy EC 1.1.2), a geotechnical investigation of the site is required. Since the geotechnical investigation for the project area is still under development to verify onsite geologic conditions, the impact is potentially significant. Implementation of **Mitigation Measure 6-1** described below would reduce the impacts to **less than significant** by identifying site-specific soil conditions and limitations and implementing recommendations to meet engineering requirements.

Mitigation Measures

Mitigation Measure 6-1: Perform Geotechnical Investigation and Implement Report Recommendations.

Prior to issuance of a construction contract, the project applicant shall prepare a final geotechnical investigation of the project alignment to determine the potential for ground rupture, earth shaking, and liquefaction due to seismic events, as well as expansive soils problems. As required by the City, recommendations identified in the geotechnical report for the proposed project shall be implemented to ensure that the project's design meets Caltrans Class 1 bikeway design criteria and State Water Code Title 23 standards for recreation trails on levees.

Responsibility: City of Sacramento

Timing: Before and During Construction Activities

Findings

All additional significant environmental effects of the project relating to Geology and Soils can be mitigated to a less-than-significant level.

HAZARDS

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
7. HAZARDS			
Would the project:			
A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?		X	
B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials?			X
C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities?			X

Environmental Setting

Segments 1 and 2 traverse parcels that were historically used for waste disposal and dumping, and there are regulatory listings which indicate that contaminated materials are still present. Please refer to the Phase I Environmental Site Assessment (GEI Consultants, Inc., 2018, included as Appendix D) for additional details. Groundwater monitoring wells associated with historic landfill uses are present near Segment 2, although sample results from these wells have not indicated the presence of contaminants above regulatory standards.

No evidence of soil or groundwater contamination has been identified in Segments 3 through 6 (GEI Consultants, Inc., 2018).

The project does not include demolition of any structures, and there are no known asbestos-containing materials that would be affected by construction of the project.

Standards of Significance

For the purposes of this Initial Study, an impact is considered significant if the proposed project would:

- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards. See Chapter 4.6. Implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to

hazards and hazardous materials during the life of the general plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 general Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

Answers to Checklist Questions

Question A

Portions of the project site (Segments 1 and 2) include lands that were historically used for waste disposal, and the Phase I Environmental Site Assessment prepared for the project indicated the potential presence of contaminated soil. During cut and fill activities associated with constructing the proposed project, construction workers could encounter contaminated soil. This impact would be significant. **Mitigation Measures 7-1 and 7-2** have been identified to reduce this impact to **less than significant**.

Implementing Mitigation Measures 7-1 and 7-2 would reduce the impact related to exposure to contaminated soil to a less-than-significant level because measures would be taken to ensure appropriate closure of potentially contaminated sites prior to construction, and safety measures would be put in place for workers, including identifying the potential contaminants that could be encountered during construction, and a framework for responding to any hazardous materials so encountered.

Question B

No structures would be demolished as a part of the project, so there would be no potential for exposure to asbestos-containing materials.

Construction activities associated with trail construction would use minor amounts of hazardous materials, such as fuels (gasoline and diesel), oils and lubricants, and cleaners (which could include solvents and corrosives in addition to soaps and detergents) that are commonly used in construction projects. The proposed project would not entail any unusual risks associated with the transport and handling of hazardous materials.

Regulations governing hazardous materials transport are included in CCR Title 22, the California Vehicle Code (CCR Title 13), and the State Fire Marshal Regulations (CCR Title 19). Transport of hazardous materials can only be conducted under a registration issued by the California Department of Toxic Substances Control. Furthermore, the proposed project would not entail the use or storage of large quantities of hazardous or flammable materials. Construction contractors would be required to use, store, and transport hazardous materials in compliance with Federal, State, and local regulations during project construction as indicated above.

This impact would be **less than significant**.

Question C

Construction of the proposed trail would include only minor excavation and fill and is not expected to encounter the water table. No dewatering would be required during construction of the project. There would be **no impact**.

Mitigation Measures

Mitigation Measure 7-1: Prepare a Worker Health and Safety Plan and Implement Appropriate Measures to Minimize Potential Exposure to Hazardous Materials.

The City of Sacramento shall implement the following measures before and during construction to reduce potentially significant impacts associated with exposure to hazardous materials.

- Prepare and implement a worker health and safety plan before the start of construction activities that identifies, at a minimum, the potential types of contaminants that could be encountered during construction activity; all appropriate worker, public health, and environmental protection equipment and procedures to be used during project activities; emergency response procedures; the most direct route to the nearest hospitals; and a Site Safety Officer. The plan shall describe actions to be taken should hazardous materials be encountered on-site, including the telephone numbers of local and state emergency hazmat response agencies.

- If, during site preparation and construction activities, evidence of hazardous materials contamination is observed or suspected (e.g., stained or odorous soil or groundwater) cease immediately construction activities in the areas of the find. If contamination is observed or suspected, the City shall retain a qualified hazardous materials specialist to assess the site and collect and analyze soil and/or water samples, as necessary. If contaminants are identified in the samples, the City shall notify and consult with the appropriate Federal, State, and/or local agencies. Measures to remediate contamination and protect worker health and the environment shall be implemented in accordance with Federal, State, and local regulations before construction activities may resume at the site where contamination is encountered. Such measures could include, but are not limited to, preparation of a Phase I and/or Phase II Environmental Site Assessment, removal of contaminated soil, and pumping of groundwater into containment tanks.

Responsibility: City of Sacramento

Timing: Before and During Construction

Mitigation Measure 7-2: Obtain Site Closure and Follow Post-Closure Requirements for Dellar Encroachment Area.

If Alternative 1 is selected for Segment 2, The City of Sacramento shall implement the following measures for all Segment 2 construction:

- Construction of the trail should not commence until this area is properly closed as per the requirements of the City of Sacramento.

- Segment 2 construction should be completed under the requirements described in Title 27 of the California Code of Regulations (CCR), Division 2, Subdivision 1, Chapter 3, Subchapter 5, Section 21190 titled "CIWMB-Post-Closure Land Use."

- Where cut and fill activities occur in Segment 2, proper measures should be taken to mitigate any landfill material or other hazardous material that is encountered.

- If fill material/soils will be brought in, these soils must be certified as clean fill.

- The trail will be designed to conform with drainage patterns in the project area and to prevent water collection that could cause seepage of the buried landfill material.

Responsibility: City of Sacramento

Timing: Before and During Construction

Findings

All additional significant environmental effects of the project relating to Hazards can be mitigated to a less-than-significant level.

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HYDROLOGY AND WATER QUALITY

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
8. HYDROLOGY AND WATER QUALITY Would the project: A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?		X	
B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?			X

Environmental Setting

The project site is immediately adjacent to the American River along most of the project alignment, except for a small portion of Segment 2. Within Sacramento County, the American River is impounded at Folsom Dam and Nimbus Dam. The dams regulate the water-level of the American River throughout the project site (excepting stormwater flows from the adjacent levee slopes and floodplain) and downstream to its confluence with the Sacramento River.

The project site is in the Sacramento Hydrologic Basin Planning Area and the Lower American Hydrologic Subarea, as designated by the Central Valley Regional Water Quality Control Board (CVRWQCB). In accordance with Section 303 of the federal CWA, water quality standards for this basin are contained in the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Basin Plan). Stormwater runoff from the project site is received by the American River which is listed on the 303(d) list as an impaired water for several constituents of concern, including fecal indicator bacteria, bifenthrin, pyrethroids, toxicity, mercury, and polychlorinated biphenyls (PCBs) (CVRWQCB 2016).

The project site is in the Sacramento Valley Groundwater Basin, within the larger South American Subbasin (DWR 2003). According to the Groundwater Information Center Interactive Map Application, groundwater levels in the project area are approximately 25-40 feet from ground surface (DWR 2017).

The proposed project is mapped as Zone X (Segments 1 and 2) and Zone AE (Segment 3-6) on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (map panels 06067C0180J and 06067C0183H) (FEMA 2018). Zone X areas are designated as having a reduced flood risk due to the presence of levees and are considered by FEMA to be areas of minimal hazard (500-year flood zone) which are outside the 0.2% chance floodplain. The project areas mapped as Zone AE are designated as a Regulatory Floodway and are within the 100-year floodplain for the American River.

As detailed in Section 5, “Geology and Soils” the lands around Segments 1 and 2 are already served by the City’s Combined Sewer System (since they are located on the landside of the existing levee) and local runoff along Segments 3-6 flows by gravity overland during storm events, and also through culverts and vegetated or lined intermittent drainages, ultimately to the American River (since they are on the waterside of the existing levee).

Standards of Significance

For purposes of this Initial Study, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

- substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the Specific Plan or
- substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 4.7-1, 4.7-2), and exposure of people to flood risks (Impacts 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified that the Master EIR concluded would reduce all impacts to a less-than-significant level.

Answers to Checklist Questions

Question A

The proposed project could cause surface or groundwater to become contaminated by soil or construction-related substances. As described in the Project Description, the proposed project is limited to short-term construction activities that would cease upon project completion. During work on all trail segments and the cantilever railroad undercrossing, the proposed activities would disturb and expose soils to erosion from wind and stormwater, which could temporarily impair water quality should disturbed material, petroleum products from equipment, or construction-related wastes accidentally be discharged into local drainage ditches or onto the ground where they could be carried into receiving waters. Accidental spills of construction-related substances such as oils and fuels could also contaminate both surface water and groundwater. The extent of potential impacts on water quality would depend on several factors: the tendency of erosion of soil types encountered, soil chemistry, types of construction practices, extent of the disturbed area, durations of construction activities, proximity to receiving water bodies, and sensitivity of those water bodies to construction-related contaminants.

During project construction, clearing and grubbing of vegetation along the trail alignment, excavation, fill, grading, and compacting of soils may be needed to achieve a suitable trail base and ADA-compliant gradient which could result in short-term increased turbidity or sedimentation in the adjacent American River. Restoration of the site would involve grading and hydroseeding/revegetation after construction. These design features would protect surface water quality in the project vicinity after construction. The proposed project would not increase drainage flows along the alignment after construction. Additionally, the trail would be used by bicyclists and pedestrians, and motorized vehicles would be prohibited on the trail (except for maintenance vehicles). The prohibition on motorized vehicles, and their associated oil, grease and other fluids would also serve to protect water quality along the project alignment, after construction.

Construction activities would take place primarily during the typical construction season, April 1 to November 15, which corresponds to the dry season during which rain, and resulting stormwater runoff and ponding are not expected in this region. Given that the maximum depth of excavation expected is 5 feet, this excavation would occur just below the levee crown, and the depth to groundwater in the project area is 25-40 feet, the need to dewater any trail segments during construction is not expected. However, during earthmoving activities close to a waterway, impacts to water quality could occur due to accidental release of sediment or other contaminants. Thus, this impact would be potentially significant. Implementing

Mitigation Measure 3-3 would reduce the impact related to degradation of water quality and violation of any water quality objectives to a **less-than-significant** level because a SWPPP or SWMP would be prepared and implemented to prevent and control pollution and to minimize and control runoff and erosion.

Question B

As discussed in the setting, the project alignment (Segments 3-6) is located on the waterside of the levee, and therefore, is within a designated floodway and the 100-year floodplain. To understand the effect that the trail and railroad undercrossing structures may have on flood flows within the project area, a *Hydraulic Assessment of Existing and Project Conditions* has been prepared for the project alignment (cbec 2018).

Under the HEC-RAS two-dimensional hydraulic analysis, the cross-sectional area of the river was compared in the pre- and post-project conditions to determine if 1% or more of the river conveyance would be blocked by the proposed project during four different flow scenarios (ranging from 115,000 cfs to 192,000 cfs). The 1% threshold was established based on USACE guidance (Kukas 2014). Analysis determined that the trail footprint itself would not impact the modeled water surface elevation due to the limited topographic changes resulting from trail placement. In the model, railroad undercrossing structures were conservatively represented as complete obstructions across the width of the structural support columns to simplify calculations. Under this condition, the maximum reduction in conveyance for both undercrossings, was 0.28%, which is well below the 1% threshold. Thus, the project features are not expected to impede flood flows during or after construction and would not substantially increase exposure of people or property to injury or damage due to flooding. This impact would be **less than significant**.

Mitigation Measures

Mitigation Measure 3-3: Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention and Control Plan, and Associated Best Management Practices.

Mitigation Measure 3-3 is described in full in the Biological Resources section of this Initial Study document.

Findings

All additional significant environmental effects of the project relating to Hydrology and Water Quality can be mitigated to a less-than-significant level.

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NOISE

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
9. NOISE			
Would the project:			
A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?			X
B) Result in residential interior noise levels of 45 dBA L _{dn} or greater caused by noise level increases due to the project?			X
C) Result in construction noise levels that exceed the standards in the City of Sacramento general plan or Noise Ordinance?			X
D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction?			X
E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations?			X
F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic?			X

Environmental Setting

Noise and Vibration

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium, such as air. Noise is defined as sound that is unwanted (loud, unexpected, or annoying). Excessive exposure to noise can result in adverse physical and psychological responses (e.g., hearing loss and other health effects, anger, and frustration); interfere with sleep, speech, and concentration; or diminish the quality of life.

The perceived loudness of sounds depends on many factors, including sound pressure level and frequency content. However, within the usual range of environmental sound levels, perception of loudness is relatively predictable, and can be approximated through frequency filtering using the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (decibels expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard

descriptor for environmental noise assessment. All noise levels reported in this section are in terms of A-weighting.

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 50% for each doubling of distance from the source.

Noise-Sensitive Receptors

The project site is in central Sacramento. Construction access would be via local roadways, including 28th Street, Carlson Drive, Camellia Drive and H Street. Land uses defined by Federal, State, and local regulations as noise-sensitive vary slightly but typically include schools, hospitals, rest homes, places of worship, long-term care facilities, mental care facilities, residences, convalescent (nursing) homes, hotels, certain parks, and other similar land uses. The closest noise-sensitive land uses are residences located within 85 feet of construction areas. Residences, and two schools and two churches (Caleb Greenwood Elementary, Fremont Presbyterian Church and School, Sacramento Central Seventh-Day Adventist Church) along local haul routes are also noise-sensitive uses potentially affected by the project. The primary existing noise sources near the project site include vehicular traffic, and the UPRR line.

Standards of Significance

For purposes of this Initial Study, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of general plan policies:

- result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- result in residential interior noise levels of 45 dBA L_{dn} or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The general plan policies establish exterior (Policy EC 3.1.1) and interior (Policy EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the general plan. See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the general plan policies, noise impacts for exterior noise levels (Impact 4.8-1) and interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

Answers to Checklist Questions

Questions A, B, and C

The project would generate construction noise from equipment operating at the project site, and from the transport of construction workers, construction materials, and equipment to and from each work location. The list of construction equipment that would be used for project construction activities is shown in **Table 13** with typical noise levels generated at 50 feet from the equipment (reference levels).

Table 13. Construction Equipment and Typical Equipment Noise Levels		
Type of Equipment	Noise Levels (dBA)	
	L _{max} at 50 Feet	L _{eq} at 50 Feet
Equipment/Supply Transport Trucks	84	80
Front-end Loader	80	76
Bulldozer	85	81
Highway Dump Truck	84	80
Grader	85	81
Water Truck	84	80
Self-propelled Sheepsfoot or Tamping Roller	85	78
Vibratory Smooth-wheel Compactor	80	73
Forklift	85	78
Concrete Transit Truck	84	80
Lubricating Truck	84	80
Pick-up Truck	55	51
Hydro-seed Truck	84	80

Notes:
L_{max} = maximum instantaneous sound level; L_{eq} = 1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)
Source: Construction equipment list based on Federal Highway Administration 2006, adapted by GEI Consultants, Inc. in 2016 and 2017

The 2035 General Plan establishes acceptable exterior noise levels in Policy EC 3.1.1. Acceptable exterior noise levels for land uses in the vicinity of the project site range from a weighted 24-hour average of 60 dBA for low-density residential to 70 dBA for schools, parks, office buildings, and urban residential projects, to 75 dBA for industrial uses. Depending on the existing exterior noise environment, incremental noise increases can also be significant, even if the noise compatibility standards are not exceeded. Chapter 8.68.060 (Exterior Noise Standards) establishes acceptable noise levels of 55 dBA from 7 a.m. to 10 p.m. for residential properties.

Chapter 8.68.080 (Exemptions) of the Sacramento City Code exempts construction noise from its noise standards, provided that construction noise occurs between the hours of 7:00 am and 6:00 pm Monday through Saturday and between the hours of 9:00 am and 6:00 pm on Sunday. Since all project-related construction activities would only occur within the hours specified in the City’s code, the proposed project would not result in a violation of the City’s construction noise standards.

Trail uses following project implementation would be similar to existing uses (hiking, dog walking, bicycling). Although the number of users along the trail alignment, particularly bicycle commuters, may at times be greater relative to existing conditions, there would be no motors or other mobile sources of noise introduced. Activities associated with trail maintenance would also be similar to existing levee maintenance activities. Typical maintenance activities during project operation would include routine inspections, debris removal, and repair of cracks and slope failures. Mowing would occur four times per year, and tree and vegetation

trimming would occur on an annual basis. Because operation of the trail would not introduce significant new noise sources or expose new sensitive receptors to noise, this impact would be **less than significant**.

Questions D, E, and F

Operation of some construction and maintenance equipment, and construction traffic would produce groundborne vibration. Project-related vibration levels were estimated using FTA’s guidelines for environmental impact assessment to calculate a screening distance for vibration effects. The calculated screening distance is based on FTA’s reference vibration levels for construction equipment (shown in **Table 14**). The highest reference vibration level for equipment used in constructing or maintaining the project is associated with use of a vibratory roller, approximately 94 VdB (0.210 inch per second PPV) at a distance of 25 feet (Caltrans 2013; FTA 2006). This vibration level at 25 feet is below the City of Sacramento’s 0.5 inch per second PPV threshold. Although the use of a vibratory roller within 25 feet of the UPRR overcrossing (a historic structure) would exceed the City’s 0.2 inch per second PPV standard, the UPRR overcrossing is built to withstand the vibration produced by freight and passenger rail traffic, well in excess of that produced by a vibratory roller. Therefore, impacts related to groundborne vibration from the operation of construction and maintenance equipment would be less than significant.

Equipment	PPV at 25 feet (in/sec)	Approximate VdB at 25 feet
Hoe Ram	0.089	87
Vibratory Roller	0.210	94
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Notes: PPV = peak particle velocity; in/sec = inches per second; VdB = vibration decibels
Source: Federal Transit Administration 2006

Unless there are substantial discontinuities in local roads, groundborne vibration generated by traffic traveling on roadways does not exceed FTA standards (FTA 2006). The project-generated construction traffic would use established roadways and potential project impacts related to groundborne vibration from construction traffic would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Noise.

PUBLIC SERVICES

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>10. PUBLIC SERVICES Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?</p>			X

Environmental Setting

The project site is located within the City of Sacramento and within the Woodlake and Paradise Beach ARPP areas. The Sacramento County Park Ranger Unit is responsible for day-to-day patrol and law enforcement within the Parkway. The City of Sacramento Police (SPD) and Sacramento County Sheriff’s Department have concurrent law enforcement responsibilities within their respective jurisdictions where those jurisdictions overlap within the Parkway. Portions of the project alignment that are within Sutter’s Landing Regional Park are also under the jurisdiction of City of Sacramento Park Rangers. The project lies within SPD Police District 3A, 3B, and 6E (SPD 2017). Other public safety agencies that provide law enforcement within the Parkway on a less frequent basis include CDFW, the California Highway Patrol, Cal Expo Police and the CSUS Police Department (Sacramento County 2008).

Police resources, are allocated and assigned on an annual basis based upon several factors, including, but not limited to incidents of crime within a geographic area (police beat), population, and police staffing capabilities. Any significant expansion in terms of buildings, population, etc. would be factored into the annual patrol planning analysis when determining the amount of resources (patrol officers) to place in that particular geographic beat for the coming calendar year. (Young, Pers. Comm. 2018)

Emergency medical and fire protection is provided by the Sacramento City Fire Department. The project site is located within the Engine Company First-In District or Response Zone for Stations 2 and 4 (trail segments 1-3), and Station 6 (trail segments 4-6) (SFD 2012).

The City of Sacramento Unified School District provides school services to 42,000 students in the project vicinity.

Standards of Significance

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. These include police, fire protection, schools, libraries and emergency services (Chapter 4.10).

The general plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects of development that could occur under the general plan would be less than significant.

General plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.4 that encourages joint-use

development of facilities) reduce impacts on schools to a less-than-significant level. (Impacts 4.10-3, 4) Impacts on library facilities were considered less than significant (Impact 4.10-5).

Answers to Checklist Question

Fire Protection Services

Segments 1 and 2 are not readily accessible to or routinely used by the public at the time of the preparation of the IS. Segments 3 through 6 are on public land and are routinely used for recreation. The existing gravel road along the levee crown, the existing road along the levee toe (which includes both gravel and unpaved areas) and informal trails through wooded areas closer to the river are all used for recreation, including walking, jogging, biking, and dog walking.

Segments 3 through 6 are readily accessible and routinely used by existing local and regional residents for recreation. The proposed project would not involve construction of residences or commercial buildings that would increase the population in the SFD service area. Construction workers, some likely from outside the immediate adjacent neighborhoods, would be in the area temporarily during construction, and following project completion, the developed access would likely result in increased bicycle and pedestrian use in the project area. Nevertheless, several fire stations are in close proximity to the proposed project alignment and these areas already receive fire protection services from SFD, as discussed in the Environmental Setting for this section. Construction and operation of the project would not cause an increase in population such that additional fire stations would be needed under General Plan guidelines. The proposed project is consistent with the land use designation for these areas in the 2035 General Plan. Existing Sacramento County Parks Fire Fuel Reduction Action Plan activities along the Parkway would continue as would fuels and vegetation management in compliance with City Code (Sacramento County 2018). Therefore, impacts to fire service from the proposed project have already been accounted for, and the project would comply with the requirements of the City Code, County Parks, and General Plan policies regarding adequate fire protection services. As a result, **no impact** would occur related to fire protection.

Police Protection Services

The majority of the project alignment is already used for undeveloped recreation and areas along the trail alignment are already under the jurisdiction of and served by SPD and City and County Park Rangers. The proposed project would not require construction of a new station or expansion of an existing facility in order to provide law enforcement services in the project area. Additionally, trail improvements associated with the proposed project were anticipated under the 2035 General Plan and would be consistent with General Plan policies. Thus, there would be **no impact**.

Nearby residents have expressed concerns that the project would increase the number of unsheltered people along the Parkway in the project site, resulting in indirect impacts. Although the project would introduce a paved path into areas currently characterized by informal recreation (Segments 3 through 6), this portion of the project site is currently accessible to the public and in widespread use for undeveloped recreation. There is no evidence to indicate that a paved path would lead to increased crime, fires, or noise relative to the current condition.

School and Library Services

The project site is located along City-owned lands and the Parkway. The proposed project would not require school or library services because the project does not propose any residential uses that would generate demand for such services. Therefore, there would be **no impact** to school and library resources as a result of the proposed project.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Public Services.

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RECREATION

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
11. <u>RECREATION</u> Would the project:			
A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities?			X
B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?			X

Environmental Setting

The project site extends from the Sacramento Northern Bikeway to Sutter’s Landing Regional Park (Segments 1 and 2), and from Sutter’s Landing Regional Park to H Street (Segments 3 through 6).

Segments 1 and 2 are not readily accessible or routinely used for recreation at the time of this IS’s preparation. Segments 3 through 6 are on readily accessible public land and are routinely used for recreation. In Segments 3 through 6, the existing gravel road along the levee crown, the existing road along the levee toe (which includes both gravel and unpaved areas), and informal trails through wooded areas closer to the river are all used for recreation, including walking, jogging, biking, and dog walking.

The ARPP (Sacramento County 2008) designates Segments 1 and 2, and Segments 3 through 6 as “Protected Area.” Facilities permitted in this designation include surfaced and unsurfaced trails, water fountains, occasional family unit picnic tables, and restrooms located at trail rest stops. Trail recreational activities envisioned in Protected Areas include walking, hiking, running, horseback riding, and bicycling. The Two Rivers Trail is identified as a “proposed bike trail” in the ARPP. The ARPP also identifies activities and facilities for the Paradise Beach area. Due to the limited availability of parking at Glenn Hall Park, and the lack of legal on-street parking in the immediate vicinity of the park, the ARPP recommends that structures or physical changes that would attract groups of users to Paradise Beach should not be introduced.

During public outreach activities conducted by the City of Sacramento during the project planning and design, residents expressed satisfaction with the existing informal use of the levee crown, levee toe, and trails, and expressed concerns about compatibility of trails for bicycles, pedestrians, and dog walkers.

Existing park facilities in proximity to the proposed project include Sutter’s Landing Regional Park and Glenn Hall Park. Sutter’s Landing Regional Park offers a dog park, skate park, basketball and bocce courts, an existing portion of the Two Rivers Trail, and several parking lots. (City of Sacramento 2018a) Facilities at Glenn Hall Park include a public swimming pool, playground, picnic areas, tennis and volleyball courts, athletic fields, restrooms, and a parking lot. (City of Sacramento 2018b) Other nearby access points to the American River Trail’s system of bicycle and pedestrian trails include Discovery Park, Ethan Way, Paradise Beach (at Glenn Hall Park), and Howe Avenue. (ARPF 2018)

The Lower American River has been designated a “Recreational River” under both the California Wild and Scenic Rivers Act and the National Wild and Scenic Rivers Act (NWSR 2018).

Standards of Significance

For purposes of this IS, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The general plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies. (Impacts 4.9-1 and 4.9-2)

Answers to Checklist Questions

Question A

The project would expand recreational opportunities at the project site by offering a paved multi-use trail. The trail would generally consist of an 8-foot-wide paved path with a 2-foot-wide compacted aggregate base shoulder on the inner side and a similar 6-foot-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail, bringing the total trail cross section along most of its length to 16 feet wide. However, due to space limitations in some locations, the waterside shoulder of the trail would be narrowed to 4 feet wide. There are no formal recreational facilities along most of the proposed trail alignment; the trail would connect several existing recreational facilities, including the Sacramento Northern Bikeway Trail, Sutter's Landing Regional Park, Glenn Hall Park, and an existing developed trail in the American River Parkway, extending eastward from H Street. Visitors seeking access to the proposed project might increase the use of Sutter's Landing Regional Park facilities, including use of parking and other facilities. However, as described above, the limited parking available at Glenn Hall Park reduces the potential for an increase in visitors using Glenn Hall Park to access the proposed trail facilities.

Existing informal recreational use along the proposed trail alignment would be temporarily disrupted during construction, but the disruption would be temporary and there are other trails and parks in the region. Following the completion of construction activities, the levee crown and existing informal foot trails between the levee and the American River would be unchanged from the existing condition. The proposed trail is a modification of the City's standard trail cross section; the paved width would be less than the standard trail section, and the project would include a wider gravel shoulder on the waterside of the trail. These modifications to the standard trail section are intended to better accommodate the existing pedestrian uses of the corridor, while providing an accessible facility for bicycles. This impact would be **less than significant**.

Question B

The project would not introduce any new residents or commercial uses which would increase the demand for recreational facilities beyond what was envisioned in the 2035 General Plan, and the project would include construction of recreational facilities as envisioned in the General Plan. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Recreation.

TRANSPORTATION AND CIRCULATION

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
12. TRANSPORTATION AND CIRCULATION			
Would the project:			
A) Roadway segments: degrade peak period Level of Service (LOS) from A, B, C or D (without the project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the Volume to Capacity Ratio (V/C ratio) by 0.02 or more.			X
B) Intersections: degrade peak period level of service from A, B, C or D (without project) to E or F (with project) or the LOS (without project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.?			X
C) Freeway facilities: off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway; project traffic increases that cause any ramp's merge/diverge level of service to be worse than the freeway's level of service; project traffic increases that cause the freeway level of service to deteriorate beyond level of service threshold defined in the Caltrans Route Concept Report for the facility; or the expected ramp queue is greater than the storage capacity?			X
D) Transit: adversely affect public transit operations or fail to adequately provide for access to public transit?			X
E) Bicycle facilities: adversely affect bicycle travel, bicycle paths or fail to adequately provide for access by bicycle?			X
F) Pedestrian: adversely affect pedestrian travel, pedestrian paths or fail to adequately provide for access by pedestrians?			X

Environmental Setting

The project site is in central Sacramento. Construction access would be via local roadways, including 28th Street (a local roadway), Carlson Drive (a minor collector), Camellia Drive (a local roadway) and H Street (an arterial east of Camellia Drive and major collector west of Camellia Drive) (City of Sacramento 2015).

The City of Sacramento strives to operate most roadways at a LOS D or better during typical weekday conditions. The City has identified several roadways as exceptions to this policy in the 2035 General Plan, including the Central City Community Plan Area (which includes 28th Street access to Sutter's Landing

Park), Carlson Drive, and H Street west of Carlson Drive. On these roadways, LOS F is acceptable. (City of Sacramento 2015)

Transit serving the project vicinity includes the Sacramento Regional Transit (SacRT) Bus #30, which travels on H Street between downtown Sacramento and Sacramento State University; Bus #34, which circulates through the River Park neighborhood on Carlson Drive, Moddison Avenue, Sandberg Drive, and Messina Drive and in the Midtown neighborhood on F Street; and Buses #82 and #87, which pass the project site on H Street/Fair Oaks Boulevard. (SacRT 2018)

The Midtown and River Park neighborhoods are served by sidewalks on both sides of most roadways. The project would connect to existing portions of the Two Rivers Trail, the Sacramento Northern Bikeway Trail, and the existing developed trail that extends eastward from H Street in the American River Parkway.

Standards of Significance

For purposes of this IS, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan MEIR:

Roadway Segments

- A. the traffic generated by a project degrades peak period LOS from A, B, C, or D (without the project) to E or F (with the project) or
- B. the LOS (without the project) is E or F, and project generated traffic increases the volume to capacity ratio (V/C ratio) by 0.02 or more.

Intersections

- the traffic generated by a project degrades peak period LOS from A, B, C, or D (without the project) to E or F (with the project) or
- the LOS (without the project) is E or F, and project generated traffic increases the peak period average vehicle delay by five seconds or more.

Freeway Facilities

Caltrans considers the following to be significant impacts.

- off-ramps with vehicle queues that extend into the ramp's deceleration area or onto the freeway;
- project traffic increases that cause any ramp's merge/diverge LOS to be worse than the freeway's LOS;
- project traffic increases that cause the freeway LOS to deteriorate beyond LOS threshold defined in the Caltrans Route Concept Report for the facility; or
- the expected ramp queue is greater than the storage capacity.

Transit

- adversely affect public transit operations or
- fail to adequately provide for access to public transit.

Bicycle Facilities

- adversely affect bicycle travel, bicycle paths or

- fail to adequately provide for access by bicycle.

Pedestrian Circulation

- adversely affect pedestrian travel, pedestrian paths or

- fail to adequately provide for access by pedestrians.

Construction Traffic

The Institute of Transportation Engineers (ITE) has recommended a screening criterion for assessing the effects of construction projects that create temporary traffic increases (ITE 1988). To account for the large percentage of heavy trucks associated with typical construction projects, ITE recommends a threshold level of 50 or more new peak-direction truck trips during the peak-hour. Therefore, a project would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system, and result in a significant effect related to traffic, if they would result in 50 or more new truck trips (100 passenger car equivalent [PCE] trips) during the a.m. or p.m. peak hours. This is considered an “industry standard” and is the most current guidance.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

Transportation and circulation were discussed in the Master EIR in Chapter 4.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian, and aviation components. The analysis included consideration of roadway capacity and identification of levels of service, and effects of the 2035 General Plan on the public transportation system. Provisions of the 2035 General Plan that provide substantial guidance include Mobility Goal 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), identification of LOS standards (Policy M 1.2.2), support for state highway expansion and management consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy (SACOG MTP/SCS) (Policy M 1.5.6) and development that encourages walking and biking (Policy LU 4.2.1).

While the general plan includes numerous policies that direct the development of the City’s transportation system, the Master EIR concluded that the general plan development would result in significant and unavoidable effects. See Impacts 4.12-3 (roadway segments in adjacent communities, and Impact 4.12-4 (freeway segments).

Answers to Checklist Questions

Questions A through C

Construction-related activity from the proposed project may potentially disrupt the existing transportation network in the surrounding project area. No lane, street, sidewalk, or bikeway closures are planned, but heavy construction vehicles, materials, and workers would travel to and from the site and staging areas. As a result of these activities, existing roadway operation conditions may be degraded. Based on the construction details provided in the Project Description, up to 20,400 cubic yards (cy) of material would be transported as part of project construction. This includes excavation and transport offsite of 8,500 cy of material, and import of approximately 2,000 cy of fill material, approximately 7,900 cy of aggregate base, and 2,000 cy of pavement material. Based on a 5- to 6-month construction period, and assuming 10 cy per trip, this would generate approximately 21 heavy truck trips per day. Up to 20 construction workers would be present at any given time. Construction-related activity would therefore include less than 50 heavy truck trips (or 100 PCE trips) during the peak a.m. or p.m. hour. This impact would be **less than significant**. Implementation of the construction traffic control plan as described in the Project Description under “Access

and Staging Areas” would involve measures that would further reduce the potential for impacts associated with construction traffic by designating circulation routes and waiting areas for trucks.

Question D

The project would not adversely affect existing or planned transit operations. As previously discussed, SacRT routes 30, 34, 82, and 87 operate nearby and would be accessible to the project site. While the project would not be anticipated to add noticeable transit demand, any additional demand is anticipated to be adequately accommodated by the existing/planned transit system. The impacts of the proposed project would be **less than significant**.

Questions E and F

Construction

Construction of the project could result in temporary closures to the public of portions of the existing levee crown road and unimproved trail along the toe of the levee for construction access. As described in the Project Description under “Access and Staging Areas,” the construction traffic control plan would include identification and signage of detours for bicycles and pedestrian traffic. In Segments 1 and 2 currently, there is no public access to the proposed trail alignment. Therefore, closures during construction would not disrupt pedestrian or bicycle transportation in this area. At Sutter’s Landing, closures also would not significantly disrupt pedestrian or bicycle transportation because the existing trail currently dead-ends in the park, limiting through pedestrian- and bicycle traffic. At H Street, the existing bike trail along the south side of J Street, and existing bike lanes and sidewalks along Carlson Drive between H and J Streets offer an alternative route for bicycles and pedestrians. However, while portions of the trail would remain open to the public during construction between Sutter’s Landing Park and north of the H Street bridge, closures would be necessary and could disrupt existing informal recreation, including walking, bicycle riding, and dog walking. These disruptions would be temporary; alternative routes are available, and as described in the Project Description under “Access and Staging Areas,” the construction traffic control plan would include identification and signage of detours for bicycles and pedestrian traffic; therefore, this impact would be **less than significant**.

Operations

The project would add bicycle traffic to the corridor between Sutter’s Landing Regional Park and H Street (Segments 3 through 6) and eventually between Sutter’s Landing Regional Park and the Sacramento Northern Bikeway (Segments 1 and 2). Although bicycle travel is currently prohibited on the levee maintenance roads, there is some bicycle travel along the existing paths primarily along Segments 3 through 6. The number of bicycles would be expected to increase on all trail segments as a result of the project. The design of the project (with wider shoulders for pedestrian access and a narrower paved surface to reduce bicycle speeds) is intended to minimize the conflict between bicycles and pedestrians. This impact would be **less than significant**.

The project includes construction of a multiuse trail along a corridor that is currently used informally by pedestrians, joggers, and dog walkers. The project has been designed to accommodate these uses alongside bicycle users. Operational impacts related to bicycle facilities and pedestrian transportation would be beneficial.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Transportation and Circulation.

TRIBAL CULTURAL RESOURCES

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
<p><u>13. TRIBAL CULTURAL RESOURCES</u></p> <p>Would the project:</p> <p>A) Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is:</p> <p style="margin-left: 40px;">i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources code section 5020.1(k) or</p> <p style="margin-left: 40px;">ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	X	X	

Environmental Setting

The prehistoric and ethnographic setting of the proposed project area is described in the Cultural Resources section of this Initial Study document.

Data Sources/Methodology

Under PRC section 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

On January 23, 2018, a search of the Sacred Lands Database was requested from the Native American Heritage Commission (NAHC). A response was received on January 31, 2018, indicating that Sacred Sites have been identified in the general vicinity (within the USGS quad, township, ranges, and sections of the project) but specific locations were not provided. Two tribes were listed as points of contact regarding these sites: the Lone Band of Miwok Indians (lone), and United Auburn Indian Community (UAIC). Three additional

federally listed tribes were indicated for consultation: Buena Vista Rancheria of Me-Wuk Indians (Buena Vista), Shingle Springs Band of Miwok Indians (Shingle Springs), and Wilton Rancheria (Wilton).

Native American Consultation Under the California Environmental Quality Act

Two tribes have previously requested to be notified regarding projects within their traditional geographic area of cultural affiliation, in accordance with Public Resources Code Section 21080.3.1: UAIC and Wilton Rancheria. Consultation under Public Resources Code Section 21080.3.1 with UAIC is on-going.

A description of Native American consultation activities completed to date is provided below in **Table 15**.

Table 15. Native American Contact Efforts		
Date(s) Contacted	Method of Contact	Response
February 2, 2018	Letter	The City sent letters to UAIC and Wilton Rancheria notifying these Tribes about the proposed project and requesting a response within 30 days if consultation concerning the proposed project is requested. No response was received by the City from Wilton Rancheria.
February 15, 2018	Letter/Email	UAIC sent a letter to the City responding to the City's February 2, 2018 letter, indicating that UAIC would like to consult with the City under Assembly Bill 52. On the same date UAIC sent an email to the City requesting consultation, requesting a meeting and information about the proposed project, and providing recommended mitigation measures for potential impacts to tribal cultural resources.
March 22, 2018	In Person Meeting	The City and its cultural resources consultant, GEI met with a UAIC representative to discuss the proposed project. UAIC requested archaeological testing between site CA-Sac-40 and the proposed project area (the previously recorded site is outside the project area but in the vicinity); requested a copy of the cultural resources records search; and requested to have paid Native American monitors during any archaeological testing.
March 26, 2018	Email	UAIC sent an email to the City saying that upon review of their files, that 60% of the project area is what UAIC considers to be significantly sensitive.
March 30, 2018	Letter/Mailing	GEI sent UAIC a copy of the cultural resources records search, as requested by UAIC on March 22, 2018.
April through August 2018	Telephone/Email	GEI had intermittent contact with UAIC to coordinate UAIC monitoring of future archaeological augering near site CA-Sac-40
August 31, 2018	Field Visit	UAIC conducted Native American monitoring of archaeological augering between site CA-Sac-40 and the proposed project. Results for all augers were negative for buried archaeological resources.

Native American Consultation Under the National Historic Preservation Act, Section 106

Using the list of Native American contacts provided by the NAHC On January 31, 2018, GEI, on behalf of Caltrans, sent letters to the following Native American Tribes, groups and individuals on February 8, 2018.

- Crystal Martinez-Alire, Chairperson, Lone Band of Miwok Indians
- Randy Yonemura, Cultural Committee Chair, Lone Band of Miwok Indians
- Gene Whitehouse, Chairperson, United Auburn Indian Community of the Auburn Rancheria (UAIC)
- Rhonda Morningstar Pope, Chairperson, Buena Vista Rancheria of Me-Wuk Indians

- Nicholas Fonseca, Chairperson, Shingle Springs Band of Miwok Indians
- Raymond Hitchcock, Chairperson, Wilton Rancheria

On February 14, 2014, Antonio Ruiz, Cultural Resources Officer for the Department of Environmental Resources of the Wilton Rancheria, responded via email to GEI's letter. Ruiz determined that the project is within the Wilton Rancheria Tribe's ancestral territory. They requested copies of any cultural resources assessments or other assessments that have been completed on all or part of the project's APE. This includes the records search results, archaeological inventory survey, results of the Sacred Lands File search, ethnographic studies, and geotechnical reports. The response also included the Tribe's fees for reviewing these materials and comparing it with their own information and databases. Cheryl Neider, Administrative Assistant for the Department of Tribal Historic Preservation of UAIC, responded on March 13, 2018, also by email. She requested copies of any existing cultural resource assessments and records search results, GIS SHP files for the project APE, and a meeting to be set up between the City of Sacramento, GEI, and Caltrans.

My Randy Yonemura of Lone Band of Miwok Indians responded to the GEI letter by telephone and requested a meeting. A Section 106 consultation meeting was conducted with Mr. Yonemura on May 18, 2018 and Mr. Yonemura also participated in a field review of the project area with GEI archaeologists.

Section 106 consultation meetings were also held with UAIC representatives on March 22, 2018 and on May 21, 2018. UAIC identified areas considered to be sensitive by UAIC and requested archaeological testing in the APE near site CA-Sac-40 and Native American monitoring during that testing. UAIC conducted Native American monitoring of the archaeological monitoring on August 31, 2018.

To date, no specific Native American cultural resources have been identified in the APE by consulting Tribes. Native American consultation under Section 106 of the NHPA is on-going.

Regulatory Setting

Federal

There are no Federal plans, policies, or regulations related to Tribal Cultural Resources that are directly applicable to the proposed project, however Section 106 of the National Historic Preservation Act does require consultation with Native Americans to identify and consider certain types of cultural resources. Cultural resources of Native American origin identified as a result of the identification efforts conducted under Section 106 may also qualify as tribal cultural resources under CEQA.

State

California Environmental Quality Act — Statute and Guidelines. CEQA requires that public agencies that finance or approve public or private projects must assess the effects of the project on tribal cultural resources. Tribal cultural resources are defined in Public Resources Code (PRC) 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe that is (1) listed or determined eligible for listing on the California Register of Historical Resources (CRHR) or a local register, or (2) that is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

California Public Resources Code Section 5024. PRC Section 5024.1 establishes the CRHR, which is the authoritative guide for identifying the State's historical resources to indicate what properties are to be protected, if feasible, from substantial adverse change. For a resource to be eligible for the CRHR, it must be more than 50 years old, retain its historic integrity, and satisfy one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Standards of Significance

For the purposes of this Initial Study, a tribal cultural resource is considered to be a significant resource if the resource is: 1) listed or eligible for listing in the CRHR or in a local register of historical resources; or 2) the resource has been determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. For purposes of this Initial Study, impacts on tribal cultural resources may be considered significant if construction and/or implementation of the proposed project would result in the following:

- cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources (see Master EIR Chapter 4.4 and Appendix C – Background Report, B. Cultural Resources Appendix), but did not specifically address tribal cultural resources because that resource type had not yet been defined in CEQA at the time the Master EIR was adopted. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources, some of which could be tribal cultural resources as defined in Public Resources Code 21074. Ground-disturbing activities resulting from implementation of development under the 2035 General Plan could affect the integrity of an archaeological site (which may be a tribal cultural resource), thereby causing a substantial change in the significance of the resource. General plan policies identified as reducing such effects on cultural resources that may also be tribal cultural resources include identification of resources on project sites (Policy HCR 2.1.1); implementation of applicable laws and regulations (Policy HCR 2.1.2); consultation with appropriate organizations and individuals including the Native American Heritage Commission and implementation of their consultation guidelines (Policy HCR 2.1.3); enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the City's historic resources (Policy HCR 2.1.4); listing of qualified historic resources under appropriate national, State, and local registers (Policy HCR 2.1.5); consideration of historic and cultural resources in planning studies (Policy HCR 2.1.6); enforcement of compliance with local, State, and federal historic and cultural preservation requirements (Policy HCR 2.1.8); and early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10).

Of particular relevance to this project are policies that ensure compliance with protocol that protect or mitigate impacts to archaeological resources (Policy HCR 2.1.16) and that encourage preservation and minimization of impacts on cultural resources (Policy HCR 2.1.17).

Answers to Checklist Questions

Questions A i and A ii

Based on consultation with the Native American Heritage Commission, consultation with Native American Tribes in accordance with Public Resources Code Section 21080.3.1, consultation with Native American Tribes in accordance with Section 106 of the NHPA, and archaeological testing conducted near site CA-Sac-40, portions of the proposed project area may be sensitive for the presence of tribal cultural resources,

but no tribal cultural resources as defined in Public Resources Code 21074 have been identified in or adjacent to the proposed project area.

The proposed project is therefore not anticipated to result in an adverse change in the significance of a tribal cultural resource pursuant to Public Resources Code 21074. While unlikely, construction of the proposed project could result in the inadvertent discovery of undocumented tribal cultural resources such as Native American archaeological sites, Native American human remains and associated objects and materials, features, sacred places or objects with value to a Tribe that is culturally or traditionally affiliated with the proposed project, and the disturbance or destruction of these resources. Therefore, the proposed project could result in potentially significant impact on tribal cultural resources. Implementation of **Mitigation Measures 4-1a, 4-1b, and 4-1c** would reduce the impacts to a **less-than-significant** level because the resources would be avoided and preserved in place or assessed and treated in accordance with appropriate professional standards.

Mitigation Measures

Mitigation Measure 4-1a: Conduct Cultural Resources and Tribal Cultural Resources Sensitivity and Awareness Training Program Prior to Ground-Disturbing Activities

Mitigation Measure 4-1a is described in full in the Cultural Resources section of this Initial Study document.

Mitigation Measure 4-1b: In the Event that Cultural Resources or Tribal Cultural Resources Are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources.

Mitigation Measure 4-1b is described in full in the Cultural Resources section of this Initial Study document.

Mitigation Measure 4-1c: Implement Procedures in the Event of the Inadvertent Discovery of Human Remains.

Mitigation Measure 4-1c is described in full in the Cultural Resources section of this Initial Study document.

Findings

All potentially significant environmental effects of the project relating to Tribal Cultural Resources can be mitigated to a less-than-significant level.

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UTILITIES AND SERVICE SYSTEMS

Issues:	Effect will be studied in the EIR	Effect can be mitigated to less than significant	No additional significant environmental effect
14. UTILITIES AND SERVICE SYSTEMS			
Would the project:			
A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments?			X
B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?			X

Environmental Setting

Water Supply

Water service to the project area is provided by the City of Sacramento. The City provides domestic water service from a combination of surface water and groundwater sources including the American River, Sacramento River, and groundwater wells. Water from the American River and Sacramento River is diverted by two water treatment plants (WTP): the Sacramento River WTP located south of Richards Boulevard between Bercut Drive and Sequoia Pacific Drive and the Fairbairn WTP located at the northeast corner of State University Drive South and College Town Drive. Water diverted from the Sacramento and American Rivers is treated, stored in storage reservoirs, and pumped to customers via an existing conveyance network.

The City of Sacramento complies with the California Water Code, which requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) every five years. The most recent UWMP was adopted in 2016 (the 2015 UWMP) and includes an analysis of water demand sufficiency under normal, single dry year, and multiple dry year scenarios. Water supply and demand projections include future planned development until 2040.

Due to recent severe drought conditions in California, the Governor has issued multiple Executive Orders mandating water use reductions and to support making water conservation a way of life in California. These include urban water use reporting requirements and prohibitions on wasteful practices such as watering during or after rainfall, hosing off sidewalks, and irrigating ornamental turf on public street medians.

Wastewater and Stormwater

The Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) and City of Sacramento provide both collection and treatment services within their service area. Wastewater generated in the service area is collected by trunk facilities in the Sacramento Area Sewer District and then conveyed via interceptors to the Sacramento Regional Wastewater Treatment Plant (SRWTP) (SRCSD 2018, SASD 2018). Wastewater within the vicinity of Segments 1 and 2 is collected by the City of Sacramento's Combined Sewer System and wastewater within the vicinity of Segment 3 through 6 is collected by SASD facilities. During non-storm conditions, all wastewater collected is conveyed to the SRCSD system, and ultimately treated at the SRWTP, which is located in Elk Grove.

There are no public restrooms or other wastewater-generating facilities along the project alignment. Local runoff along the project alignment flows by gravity overland during storm events, and also through culverts and vegetated or lined intermittent drainages, ultimately to the American River.

Solid Waste Disposal

Solid waste disposal services in the project area are provided by the Sacramento Regional Solid Waste Authority (SWA). The Sacramento County Kiefer Landfill in Sloughhouse, CA is the primary location for the disposal of waste from the City of Sacramento. The landfill accepts municipal waste and industrial waste and is permitted to accept up to 10,815 tons per day (CalRecycle 2018). It is the only landfill facility in Sacramento County permitted to accept household waste from the public. Current peak and average daily disposal is much lower than the current permitted amounts. As a result, the Kiefer Landfill is expected to be able to provide service to the City, without need for new expansion beyond that already planned, until the year 2065 (City of Sacramento 2014).

Electricity and Natural Gas

Sacramento Municipal Utility District (SMUD) is responsible for the generation, transmission, and distribution of electrical power to its 900 square mile service area, which includes most of Sacramento County and a small portion of Placer County. The Pacific Gas & Electric Company (PG&E) provides natural gas service to residents and businesses within the City of Sacramento.

Telecommunications

AT&T provides telecommunications service in the City of Sacramento and within the project area.

Standards of Significance

For the purposes of this IS, an impact would be considered significant if the project resulted in the need for new or altered services related to water supply, wastewater, stormwater, solid waste, electricity, natural gas, or telecommunications utilities beyond what was anticipated in the 2035 General Plan:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

Summary of Analysis under the 2035 General Plan Master EIR and Applicable General Plan Policies

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the general plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the Master EIR concluded that the potential increase in demand for potable water in excess of the City's existing diversion and treatment capacity, which could require construction of new water supply facilities, would result in a significant and unavoidable effect (Impact 4.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a less-than-significant effect (Impact 4.11-4). Impacts on solid waste facilities were less than significant (Impact 4.11-5). Implementation of energy efficient standards as set forth in Titles 20 and 24 of the California Code of Regulations for residential and non-residential buildings, would reduce effects for energy to a less-than-significant level.

Answers to Checklist Questions

Questions A and B

Water Supply

The proposed project consists of constructing a bicycle and pedestrian trail. The project would not involve construction of any housing, commercial or public buildings, facilities or landscaping that would require

connection to existing water conveyance pipelines or require additional connections to the regional water supply system. There would be **no impact**.

Wastewater and Stormwater

The proposed project would not involve construction of any public restrooms or other wastewater-generating facilities along the project alignment. Therefore, additional wastewater treatment and conveyance capacity or connections to the regional wastewater management system would not be required to implement the proposed project. The bike trail footprint is not large enough to create a substantial increase in runoff from impervious surfaces and overall stormwater runoff patterns would not change along the project alignment. In Segments 1 and 2, stormwater is expected to infiltrate into the ground before entering the City's stormwater conveyance system. In Segments 3-6, all stormwater would continue to flow to the American River. The trail would be slightly sloped away from the levee crown (toward the river) to encourage sheet flow of stormwater over the ground surface. In areas where trail design may cause minor ponding of water, small drain inlets would be installed to carry water under the bike trail to outlets on the river side of the trail. Outlets would discharge out of a flared end section and onto a small area of rock which would reduce stormwater velocity and disperse the water in a way that reduces the possibility of erosion around the outlet. Therefore, project construction and operation would not contribute to a need for additional stormwater facilities or additional connections to existing facilities. There would be **no impact**.

Solid Waste

As described above, the proposed project would be served by the Sacramento Solid Waste Authority (SWA). The 2035 General Plan Master EIR does not include analysis regarding waste generation for public park or trail facilities, however the proposed project does not include residential or business facilities, thus solid waste generation would be limited to trash generated by trail users. Because the project was accounted for in the City's General Plan and Master EIR, and the project is consistent with the General Plan land use designation, this increase in solid waste production would not exhaust the remaining landfill capacity. There would be **no impact**.

Electricity and Natural Gas

Electrical service is provided to the project area by SMUD's network of overhead lines. However, in compliance with ARPP Policy 5.27 "Prohibited Activities and Facilities" which prohibits permanent lighting facilities in the Parkway, the proposed trail would not be constructed with electrical lighting along the alignment and no connections to the regional electricity grid would be required. The proposed project would also not require connection to the PG&E natural gas distribution system. Since construction of the project would not require additional connections or capacity within the electrical or natural gas distribution systems, there would be **no impact**.

Telecommunications

Construction of the proposed project would not affect the use of the existing telecommunications system. Additionally, the project would not result in the need for additional capacity within the existing system. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Findings

The project would have no additional project-specific environmental effects relating to Utilities and Service Systems.

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MANDATORY FINDINGS OF SIGNIFICANCE

Issues:	Effect remains significant with all identified mitigation	Effect can be mitigated to less than significant	No additional significant environmental effect
<p>15. MANDATORY FINDINGS OF SIGNIFICANCE</p> <p>A.) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>		X	
<p>B.) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</p>			X
<p>C.) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>			X

Answers to Checklist Questions

Question A

The analysis conducted in this IS concludes that the proposed project with mitigation would not have a significant effect on the physical environment and would not result in any of the impacts defined above.

As discussed in the Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards, Hydrology and Water Quality, and Tribal Cultural Resources sections, any potentially significant impacts related to the quality of the environment, plant, fish, or wildlife habitat or populations, special-status species, and important historical or cultural resources would be reduced to a less-than-significant level through implementation of avoidance and minimization measures and by incorporating mitigation measures. No known cultural resources would be affected by the proposed project and if unidentified resources are encountered during construction, mitigation measures are in place to ensure that impacts would be less than significant.

Question B

Past and present projects within the project vicinity are limited as the area is primarily already developed and used as a floodway (within the leveed river corridor), for recreation (within the American River Parkway, Sutter’s Landing Park, and Glenn Hall Park), and established residential uses (in the vicinity of Segments 3-6). There are no other ongoing or proposed projects along the project alignment that would overlap with construction of the proposed project as there are strict development regulations within the American River Parkway planning area. Construction of the proposed project would result in temporary and short-term impacts that would be limited to the project site and immediate vicinity over a two-year construction period

and mitigation measures are proposed to avoid, minimize, rectify, reduce, eliminate, and/or compensate for any potentially significant impacts.

As discussed in this IS, the proposed project would result in less-than-significant impacts or no impacts on the following resource areas: aesthetics, agriculture resources, energy, land use, mineral resources, noise, public services, recreation, transportation, and utilities. Furthermore, mitigation measures have been included in this IS that would reduce impacts to a less-than-significant level in the following areas: air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, and tribal cultural resources. Therefore, all impacts would be less than significant or would be reduced to a less-than-significant level through implementation of required mitigation measures, and the proposed project would not make a cumulatively considerable incremental contribution to significant cumulative adverse impacts on those resource areas. The incremental effects of the proposed project would not be cumulatively considerable when viewed in connection with the effects of past, present, and reasonably foreseeable future projects. This impact would be **less than significant**.

Question C

As discussed throughout this IS, construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly. The proposed project is being implemented for the specific purpose of improving recreational opportunities, access, and connectivity within the regional bike trail network. Furthermore, mitigation measures are provided as necessary to reduce the proposed project's potentially significant effects on air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, and tribal cultural resources to less-than-significant levels. Thus, construction and operation of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly and would improve the quality of life for humans by improving recreational opportunities and access to the regional bike trail network. There would be **no impact**.

SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this project, but would be mitigated to a less-than-significant level with implementation of mitigation.

<input type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Hazards
<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Noise
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Public Services
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Recreation
<input type="checkbox"/> Energy	<input type="checkbox"/> Transportation/Circulation
<input checked="" type="checkbox"/> Geology and Soils	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> None Identified	


SECTION V - DETERMINATION

On the basis of the initial study:

I find that (a) the proposed project is an anticipated subsequent project identified and described in the 2035 General Plan Master EIR; (b) the proposed project is consistent with the 2035 General Plan land use designation and the permissible densities and intensities of use for the project site; (c) that the discussions of cumulative impacts, growth inducing impacts, and irreversible significant effects in the Master EIR are adequate for the proposed project; and (d) the proposed project will have additional significant environmental effects not previously examined in the Master EIR. A Mitigated Negative Declaration will be prepared. Mitigation measures from the Master EIR will be applied to the project as appropriate, and additional feasible mitigation measures and alternatives will be incorporated to revise the proposed project before the negative declaration is circulated for public review, to avoid or mitigate the identified effects to a level of insignificance. (CEQA Guidelines Section 15178(b))



Signature



Date



Printed Name

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APPENDIX A. REPRESENTATIVE PHOTOS



Photo 1: View facing west across upland area of Segment 2 from near Sutter's Landing Regional Park



Photo 2: View facing east towards Business 80 Bridge. Typical riparian vegetation at left, and grassy levee slope at right. Proposed trail would follow existing gravel toe road at this location.



Photo 3: Facing west towards Business 80 bridge. The proposed trail would be on the slope of the levee here due to the lack of levee toe road.



Photo 4: Facing east on Segment 4. The proposed trail would require vegetation removal at this location due to narrow width of existing track on levee toe.



Photo 5: Facing east in the Paradise Beach Area. View of riparian vegetation to the left and levee slope to the right. Proposed trail would follow existing toe road in this location.



Photo 6: Facing west near Paradise Beach access at Glenn Hall Park.



Photo 7: Facing east toward connection to existing trail at H Street.

APPENDIX B. AIR QUALITY MODELING ASSUMPTIONS AND RESULTS

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 15

Date: 9/17/2018 11:21 AM

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

Two Rivers Trail Phase II: Section 3-6
Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	3.40	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2021
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 15

Date: 9/17/2018 11:21 AM

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

Project Characteristics -

Land Use - Proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail.

Construction Phase - Project is proposed to last 100 days

Off-road Equipment - Off-Highway Trucks are Concrete Truck and Concrete Pump Truck

Trips and VMT - based on proposed project description

On-road Fugitive Dust - Assuming 2% not paved if moving onsite

Grading - Assume 16ft wide and 2.25 miles long path which is equal to 4.4 acres of grading

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Area Coating -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	100.00
tblConstructionPhase	PhaseEndDate	5/31/2020	10/16/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblRoadDust	CARB_PM_VMT	True	False
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	820.00
tblTripsAndVMT	HaulingTripNumber	0.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	717.00
tblTripsAndVMT	HaulingTripNumber	0.00	179.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	7.00

2.0 Emissions Summary

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.2826	42.8512	28.0796	0.0863	49.4579	1.7056	51.1635	5.1522	1.5820	6.7341	0.0000	8,574,458 0	8,574,458 0	1.8542	0.0000	8,620.812 7
Maximum	4.2826	42.8512	28.0796	0.0863	49.4579	1.7056	51.1635	5.1522	1.5820	6.7341	0.0000	8,574,458 0	8,574,458 0	1.8542	0.0000	8,620.812 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	4.2826	42.8512	28.0796	0.0863	49.4579	1.7056	51.1635	5.1522	1.5820	6.7341	0.0000	8,574,458 0	8,574,458 0	1.8542	0.0000	8,620.812 7
Maximum	4.2826	42.8512	28.0796	0.0863	49.4579	1.7056	51.1635	5.1522	1.5820	6.7341	0.0000	8,574,458 0	8,574,458 0	1.8542	0.0000	8,620.812 7

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.0000e-005	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000	0.0000	7.9000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.0000e-005	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000	0.0000	7.9000e-004

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing, Grubbing, Excavation, and Fill	Building Construction	6/1/2020	10/16/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing, Grubbing, Excavation, and Fill	Air Compressors	1	8.00	78	0.48
Clearing, Grubbing, Excavation, and Fill	Bore/Drill Rigs	1	8.00	221	0.50
Clearing, Grubbing, Excavation, and Fill	Excavators	1	6.00	158	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Rubber Tired Dozers	1	8.00	247	0.40
Clearing, Grubbing, Excavation, and Fill	Sweepers/Scrubbers	1	8.00	64	0.46
Clearing, Grubbing, Excavation, and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	820.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	133.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	717.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	179.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	7.00	1.00	10.00	15.00	9.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Clearing, Grubbing, Excavation, and Fill - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0467	0.0000	0.0467	5.0400e-003	0.0000	5.0400e-003			0.0000			0.0000
Off-Road	3.6693	35.9870	22.9824	0.0578		1.6728	1.6728		1.5508	1.5508		5,591.6912	5,591.6912	1.7162		5,634.5950
Total	3.6693	35.9870	22.9824	0.0578	0.0467	1.6728	1.7195	5.0400e-003	1.5508	1.5559		5,591.6912	5,591.6912	1.7162		5,634.5950

CalEEMod Version: CalEEMod.2016.3.2

Page 9 of 15

Date: 9/17/2018 11:21 AM

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

3.2 Clearing, Grubbing, Excavation, and Fill - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1662	5.9823	1.4095	0.0180	14.0924	0.0232	14.1156	1.4757	0.0222	1.4979		1,926,868 9	1,926,868 9	0.1047		1,929,485 6
Vendor	0.0231	0.6373	0.1746	1.6200e-003	1.3655	3.8600e-003	1.3694	0.1440	3.6900e-003	0.1477		171,9740	171,9740	8.6700e-003		172,1908
Worker	0.4220	0.2446	3.5031	8.8800e-003	33.9533	5.7100e-003	33.9590	3.5274	5.2600e-003	3.5327		883,9240	883,9240	0.0247		884,5413
Total	0.6133	6.8642	5.0872	0.0285	49.4113	0.0328	49.4440	5.1471	0.0311	5.1783		2,982,766 9	2,982,766 9	0.1380		2,986,217 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0467	0.0000	0.0467	5.0400e-003	0.0000	5.0400e-003			0.0000			0.0000
Off-Road	3.6693	35.9870	22.9924	0.0578		1.6728	1.6728		1.5508	1.5508	0.0000	5,591,691 2	5,591,691 2	1.7162		5,634,595 0
Total	3.6693	35.9870	22.9924	0.0578	0.0467	1.6728	1.7195	5.0400e-003	1.5508	1.5599	0.0000	5,591,691 2	5,591,691 2	1.7162		5,634,595 0

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

3.2 Clearing, Grubbing, Excavation, and Fill - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1662	5.9823	1.4095	0.0180	14.0924	0.0232	14.1156	1.4757	0.0222	1.4979		1,926,868 9	1,926,868 9	0.1047		1,929,485 6
Vendor	0.0231	0.6373	0.1746	1.6200e-003	1.3655	3.8600e-003	1.3694	0.1440	3.6900e-003	0.1477		171,9740	171,9740	8.6700e-003		172,1908
Worker	0.4220	0.2446	3.5031	8.8800e-003	33.9533	5.7100e-003	33.9590	3.5274	5.2600e-003	3.5327		883,9240	883,9240	0.0247		884,5413
Total	0.6133	6.8642	5.0872	0.0285	49.4113	0.0328	49.4440	5.1471	0.0311	5.1783		2,982,766 9	2,982,766 9	0.1380		2,986,217 7

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

CalEEMod Version: CalEEMod.2016.3.2

Page 11 of 15

Date: 9/17/2018 11:21 AM

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Unmitigated	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Total	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Total	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II Section 3-6 - Sacramento County, Annual

Two Rivers Trail Phase II: Section 3-6
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	3.40	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2021
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

Project Characteristics -

Land Use - Proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail.

Construction Phase - Project is proposed to last 100 days

Off-road Equipment - Off-Highway Trucks are Concrete Truck and Concrete Pump Truck

Trips and VMT - based on proposed project description

On-road Fugitive Dust - Assuming 2% not paved if moving onsite

Grading - Assume 16ft wide and 2.25 miles long path which is equal to 4.4 acres of grading

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Area Coating -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	100.00
tblConstructionPhase	PhaseEndDate	5/31/2020	10/16/2020
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblRoadDust	CARB_PM_VMT	True	False
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	820.00
tblTripsAndVMT	HaulingTripNumber	0.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	717.00
tblTripsAndVMT	HaulingTripNumber	0.00	179.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	7.00

2.0 Emissions Summary

Two Rivers Trail Phase II, Section 3-6 - Sacramento County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2120	2.1566	1.3761	4.2700e-003	2.0884	0.0853	2.1737	0.2189	0.0791	0.2980	0.0000	384.5293	384.5293	0.0841	0.0000	386.6307
Maximum	0.2120	2.1566	1.3761	4.2700e-003	2.0884	0.0853	2.1737	0.2189	0.0791	0.2980	0.0000	384.5293	384.5293	0.0841	0.0000	386.6307

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2120	2.1566	1.3761	4.2700e-003	2.0884	0.0853	2.1737	0.2189	0.0791	0.2980	0.0000	384.5290	384.5290	0.0841	0.0000	386.6304
Maximum	0.2120	2.1566	1.3761	4.2700e-003	2.0884	0.0853	2.1737	0.2189	0.0791	0.2980	0.0000	384.5290	384.5290	0.0841	0.0000	386.6304

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOx (tons/quarter)	Maximum Mitigated ROG + NOx (tons/quarter)
1	6-1-2020	8-31-2020	1.5487	1.5487
2	9-1-2020	9-30-2020	0.5050	0.5050
		Highest	1.5487	1.5487

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing, Grubbing, Excavation, and Fill	Building Construction	6/1/2020	10/16/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing, Grubbing, Excavation, and Fill	Air Compressors	1	8.00	78	0.48
Clearing, Grubbing, Excavation, and Fill	Bore/Drill Rigs	1	8.00	221	0.50
Clearing, Grubbing, Excavation, and Fill	Excavators	1	6.00	158	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Rubber Tired Dozers	1	8.00	247	0.40
Clearing, Grubbing, Excavation, and Fill	Sweepers/Scrubbers	1	8.00	64	0.46
Clearing, Grubbing, Excavation, and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	820.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	133.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	717.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	179.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	7.00	1.00	10.00	15.00	9.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

3.2 Clearing, Grubbing, Excavation, and Fill - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3300e-003	0.0000	2.3300e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1835	1.7894	1.1496	2.8900e-003		0.0836	0.0836		0.0775	0.0775	0.0000	253.6348	253.6348	0.0778	0.0000	255.5808
Total	0.1835	1.7894	1.1496	2.8900e-003	2.3300e-003	0.0836	0.0860	2.5000e-004	0.0775	0.0778	0.0000	253.6348	253.6348	0.0778	0.0000	255.5809

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4900e-003	0.3110	0.0718	8.9000e-004	0.5952	1.1700e-003	0.5864	0.0628	1.1200e-003	0.0639	0.0000	86.9396	86.9396	4.8200e-003	0.0000	87.0601
Vendor	1.1700e-003	0.0328	9.1500e-003	8.0000e-005	0.0577	1.8000e-004	0.0579	6.1400e-003	1.9000e-004	6.3200e-003	0.0000	7.7363	7.7363	4.0000e-004	0.0000	7.7465
Worker	0.0188	0.0135	0.1455	4.0000e-004	1.4331	2.9000e-004	1.4334	0.1498	2.6000e-004	0.1500	0.0000	36.2186	36.2186	9.9000e-004	0.0000	36.2432
Total	0.0285	0.3572	0.2265	1.3700e-003	2.0861	1.6500e-003	2.0877	0.2187	1.5700e-003	0.2203	0.0000	130.8945	130.8945	6.2100e-003	0.0000	131.0498

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

3.2 Clearing, Grubbing, Excavation, and Fill - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3300e-003	0.0000	2.3300e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1835	1.7894	1.1496	2.8900e-003		0.0836	0.0836		0.0775	0.0775	0.0000	253.6345	253.6345	0.0778	0.0000	255.5806
Total	0.1835	1.7894	1.1496	2.8900e-003	2.3300e-003	0.0836	0.0860	2.5000e-004	0.0775	0.0778	0.0000	253.6345	253.6345	0.0778	0.0000	255.5806

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.4900e-003	0.3110	0.0718	8.9000e-004	0.5952	1.1700e-003	0.5864	0.0628	1.1200e-003	0.0639	0.0000	86.9396	86.9396	4.8200e-003	0.0000	87.0601
Vendor	1.1700e-003	0.0328	9.1500e-003	8.0000e-005	0.0577	1.8000e-004	0.0579	6.1400e-003	1.8000e-004	6.3200e-003	0.0000	7.7363	7.7363	4.0000e-004	0.0000	7.7465
Worker	0.0188	0.0135	0.1455	4.0000e-004	1.4331	2.9000e-004	1.4334	0.1498	2.6000e-004	0.1500	0.0000	36.2186	36.2186	9.9000e-004	0.0000	36.2432
Total	0.0285	0.3572	0.2265	1.3700e-003	2.0861	1.6500e-003	2.0877	0.2187	1.5700e-003	0.2203	0.0000	130.8945	130.8945	6.2100e-003	0.0000	131.0498

4.0 Operational Detail - Mobile

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	Tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Divered	Pass-by
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000818	0.000915

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 13 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II, Section 3-6 - Sacramento County, Annual

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 14 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II: Section 3-6 - Sacramento County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Two Rivers Trail Phase II, Section 3-6 - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Unmitigated	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

CalEEMod Version: CalEEMod.2016.3.2

Page 16 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005	
Total	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005	

7.0 Water Detail

7.1 Mitigation Measures Water

CalEEMod Version: CalEEMod.2016.3.2

Page 17 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II; Section 3-6 - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 18 of 20

Date: 9/17/2018 11:20 AM

Two Rivers Trail Phase II, Section 3-6 - Sacramento County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II - Section 1-2 - Sacramento County, Summer

Two Rivers Trail Phase II: Section 1-2
Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	3.40	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2031
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

Project Characteristics -

Land Use - Proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail.

Construction Phase - Project is proposed to last 60 days

Off-road Equipment - Off-Highway Trucks are Concrete Truck and Concrete Pump Truck

Trips and VMT - based on proposed project description

On-road Fugitive Dust - Assuming 2% not paved if moving onsite

Grading - Assume 16ft wide and 1.1 miles long path which is equal to 2.1 acres of grading

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Area Coating -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	PhaseEndDate	6/2/2030	8/23/2030
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblRoadDust	CARB_PM_VMT	True	False
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	0.00	333.00
tblTripsAndVMT	HaulingTripNumber	0.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	335.00
tblTripsAndVMT	HaulingTripNumber	0.00	84.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	7.00

2.0 Emissions Summary

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	2.9603	12.5432	22.2334	0.0857	46.6510	0.3174	46.9684	4.8580	0.3169	5.1749	0.0000	8,846,145.5	8,846,145.5	0.3231	0.0000	8,854,221.9
Maximum	2.9603	12.5432	22.2334	0.0857	46.6510	0.3174	46.9684	4.8580	0.3169	5.1749	0.0000	8,846,145.5	8,846,145.5	0.3231	0.0000	8,854,221.9

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2030	2.9603	12.5432	22.2334	0.0857	46.6510	0.3174	46.9684	4.8580	0.3169	5.1749	0.0000	8,846,145.5	8,846,145.5	0.3231	0.0000	8,854,221.9
Maximum	2.9603	12.5432	22.2334	0.0857	46.6510	0.3174	46.9684	4.8580	0.3169	5.1749	0.0000	8,846,145.5	8,846,145.5	0.3231	0.0000	8,854,221.9

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.0000e-005	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000	0.0000	7.9000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	3.0000e-005	0.0000	3.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000	0.0000	7.9000e-004

CalEEMod Version: CalEEMod.2016.3.2

Page 7 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing, Grubbing, Excavation, and Fill	Building Construction	6/3/2030	8/23/2030	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing, Grubbing, Excavation, and Fill	Air Compressors	1	8.00	78	0.48
Clearing, Grubbing, Excavation, and Fill	Bore/Drill Rigs	1	8.00	221	0.50
Clearing, Grubbing, Excavation, and Fill	Excavators	1	6.00	158	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Rubber Tired Dozers	1	8.00	247	0.40
Clearing, Grubbing, Excavation, and Fill	Sweepers/Scrubbers	1	8.00	64	0.46
Clearing, Grubbing, Excavation, and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	333.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	133.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	335.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	84.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	7.00	1.00	10.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Clearing, Grubbing, Excavation, and Fill - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0371	0.0000	0.0371	4.0100e-003	0.0000	4.0100e-003			0.0000			0.0000
Off-Road	2.6464	9.5886	19.6046	0.0647		0.3076	0.3076		0.3076	0.3076		6,641.4924	6,641.4924	0.2335		6,647.3300
Total	2.6464	9.5886	19.6046	0.0647	0.0371	0.3076	0.3447	4.0100e-003	0.3076	0.3116		6,641.4924	6,641.4924	0.2335		6,647.3300

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

3.2 Clearing, Grubbing, Excavation, and Fill - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0798	2.4612	0.8408	0.0132	11.2951	5.5300e-003	11.3006	1.1826	5.2900e-003	1.1879		1,422.0710	1,422.0710	0.0735		1,423.9080
Vendor	0.0108	0.3985	0.0931	1.5100e-003	1.3655	5.4000e-004	1.3650	0.1440	5.1000e-004	0.1445		160.6209	160.6209	6.7400e-003		160.7893
Worker	0.2234	0.0950	1.6949	6.2300e-003	33.9533	3.7600e-003	33.9571	3.5274	3.4600e-003	3.5309		621.9611	621.9611	9.3400e-003		622.1946
Total	0.3139	2.9547	2.6288	0.0209	46.6139	9.8300e-003	46.6237	4.8540	9.2600e-003	4.8633		2,204.6531	2,204.6531	0.0896		2,206.8919

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0371	0.0000	0.0371	4.0100e-003	0.0000	4.0100e-003			0.0000			0.0000
Off-Road	2.6464	9.5886	19.6046	0.0647		0.3076	0.3076		0.3076	0.3076	0.0000	6,641.4924	6,641.4924	0.2335		6,647.3300
Total	2.6464	9.5886	19.6046	0.0647	0.0371	0.3076	0.3447	4.0100e-003	0.3076	0.3116	0.0000	6,641.4924	6,641.4924	0.2335		6,647.3300

CalEEMod Version: CalEEMod.2016.3.2

Page 10 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

3.2 Clearing, Grubbing, Excavation, and Fill - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0798	2.4612	0.8408	0.0132	11.2951	5.5300e-003	11.3006	1.1826	5.2900e-003	1.1879		1,422.0710	1,422.0710	0.0735		1,423.9080
Vendor	0.0108	0.3985	0.0931	1.5100e-003	1.3655	5.4000e-004	1.3650	0.1440	5.1000e-004	0.1445		160.6209	160.6209	6.7400e-003		160.7893
Worker	0.2234	0.0950	1.6949	6.2300e-003	33.9533	3.7600e-003	33.9571	3.5274	3.4600e-003	3.5309		621.9611	621.9611	9.3400e-003		622.1946
Total	0.3139	2.9547	2.6288	0.0209	46.6139	9.8300e-003	46.6237	4.8540	9.2600e-003	4.8633		2,204.6531	2,204.6531	0.0896		2,206.8919

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

CalEEMod Version: CalEEMod.2016.3.2

Page 11 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.577543	0.034512	0.211971	0.105609	0.011838	0.004411	0.018435	0.025668	0.001868	0.001481	0.005453	0.000608	0.000803

5.0 Energy Detail

Historical Energy Use: N

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	

CalEEMod Version: CalEEMod.2016.3.2

Page 13 of 15

Date: 9/17/2018 11:14 AM

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	lb/day										lb/day						
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Unmitigated	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

Two Rivers Trail Phase II: Section 1-2 - Sacramento County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Total	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004
Total	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.4000e-004	7.4000e-004	0.0000		7.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

CalEEMod Version: CalEEMod.2016.3.2

Page 1 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

Two Rivers Trail Phase II: Section 1-2
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	3.40	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2031
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

Page 2 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

Project Characteristics -

Land Use - Proposed project would create approximately 3.4 miles of new Class 1 bicycle and pedestrian trail.

Construction Phase - Project is proposed to last 60 days

Off-road Equipment - Off-Highway Trucks are Concrete Truck and Concrete Pump Truck

Trips and VMT - based on proposed project description

On-road Fugitive Dust - Assuming 2% not paved if moving onsite

Grading - Assume 16ft wide and 1.1 miles long path which is equal to 2.1 acres of grading

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products -

Area Coating -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	PhaseEndDate	6/2/2030	8/23/2030
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOffRoadEquipment	PhaseName		Clearing, Grubbing, Excavation, and Fill
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblRoadDust	CARB_PM_VMT	True	False
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripLength	20.00	25.00
tblTripsAndVMT	HaulingTripNumber	0.00	333.00
tblTripsAndVMT	HaulingTripNumber	0.00	133.00
tblTripsAndVMT	HaulingTripNumber	0.00	335.00
tblTripsAndVMT	HaulingTripNumber	0.00	84.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripLength	6.50	9.00

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

tblTripsAndVMT	VendorTripLength	6.50	9.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
tblTripsAndVMT	WorkerTripLength	10.00	15.00
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tblTripsAndVMT	WorkerTripNumber	0.00	17.00
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tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	17.00
tblTripsAndVMT	WorkerTripNumber	0.00	7.00

2.0 Emissions Summary

CalEEMod Version: CalEEMod.2016.3.2

Page 5 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.0882	0.3790	0.6583	2.5500e-003	1.1819	9.5200e-003	1.1914	0.1239	9.5100e-003	0.1334	0.0000	238.8789	238.8789	8.7900e-003	0.0000	239.0987
Maximum	0.0882	0.3790	0.6583	2.5500e-003	1.1819	9.5200e-003	1.1914	0.1239	9.5100e-003	0.1334	0.0000	238.8789	238.8789	8.7900e-003	0.0000	239.0987

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.0882	0.3790	0.6583	2.5500e-003	1.1819	9.5200e-003	1.1914	0.1239	9.5100e-003	0.1334	0.0000	238.8786	238.8786	8.7900e-003	0.0000	239.0985
Maximum	0.0882	0.3790	0.6583	2.5500e-003	1.1819	9.5200e-003	1.1914	0.1239	9.5100e-003	0.1334	0.0000	238.8786	238.8786	8.7900e-003	0.0000	239.0985

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-3-2030	9-2-2030	0.4540	0.4540
		Highest	0.4540	0.4540

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Clearing, Grubbing, Excavation, and Fill	Building Construction	6/3/2030	8/23/2030	5	60	

Acres of Grading (Site Preparation Phase): 0

CalEEMod Version: CalEEMod.2016.3.2

Page 8 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Clearing, Grubbing, Excavation, and Fill	Air Compressors	1	8.00	78	0.48
Clearing, Grubbing, Excavation, and Fill	Bore/Drill Rigs	1	8.00	221	0.50
Clearing, Grubbing, Excavation, and Fill	Excavators	1	6.00	158	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Off-Highway Trucks	1	8.00	402	0.38
Clearing, Grubbing, Excavation, and Fill	Rubber Tired Dozers	1	8.00	247	0.40
Clearing, Grubbing, Excavation, and Fill	Sweepers/Scrubbers	1	8.00	64	0.46
Clearing, Grubbing, Excavation, and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	333.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	133.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	335.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	17.00	1.00	84.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT
Clearing, Grubbing, Excavation, and Fill	8	7.00	1.00	10.00	15.00	9.00	25.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

3.2 Clearing, Grubbing, Excavation, and Fill - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1100e-003	0.0000	1.1100e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0794	0.2877	0.5881	1.9400e-003	9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	9.2300e-003	0.0000	180.7518	180.7518	6.3500e-003	0.0000	180.9107
Total	0.0794	0.2877	0.5881	1.9400e-003	1.1100e-003	9.2300e-003	0.0103	1.2000e-004	9.2300e-003	9.3500e-003	0.0000	180.7518	180.7518	6.3500e-003	0.0000	180.9107

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4100e-003	0.0760	0.0256	3.9000e-004	0.2862	1.7000e-004	0.2864	0.0302	1.6000e-004	0.0304	0.0000	38.5011	38.5011	2.0300e-003	0.0000	38.6518
Vendor	3.3000e-004	0.0122	2.8300e-003	4.0000e-005	0.0346	2.0000e-005	0.0346	3.6800e-003	2.0000e-005	3.7000e-003	0.0000	4.3362	4.3362	1.8000e-004	0.0000	4.3408
Worker	6.0600e-003	3.1400e-003	0.0416	1.7000e-004	0.8599	1.1000e-004	0.8600	0.0899	1.0000e-004	0.0900	0.0000	15.2897	15.2897	2.2000e-004	0.0000	15.2953
Total	8.8000e-003	0.0913	0.0701	6.0000e-004	1.1807	3.0000e-004	1.1810	0.1237	2.8000e-004	0.1240	0.0000	58.1270	58.1270	2.4400e-003	0.0000	58.1880

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

3.2 Clearing, Grubbing, Excavation, and Fill - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1100e-003	0.0000	1.1100e-003	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0794	0.2877	0.5881	1.9400e-003	9.2300e-003	9.2300e-003	9.2300e-003	9.2300e-003	9.2300e-003	9.2300e-003	0.0000	180.7516	180.7516	6.3500e-003	0.0000	180.9105
Total	0.0794	0.2877	0.5881	1.9400e-003	1.1100e-003	9.2300e-003	0.0103	1.2000e-004	9.2300e-003	9.3500e-003	0.0000	180.7516	180.7516	6.3500e-003	0.0000	180.9105

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4100e-003	0.0760	0.0256	3.9000e-004	0.2862	1.7000e-004	0.2864	0.0302	1.6000e-004	0.0304	0.0000	38.5011	38.5011	2.0300e-003	0.0000	38.6519
Vendor	3.3000e-004	0.0122	2.8300e-003	4.0000e-005	0.0346	2.0000e-005	0.0346	3.6800e-003	2.0000e-005	3.7000e-003	0.0000	4.3362	4.3362	1.8000e-004	0.0000	4.3409
Worker	6.0600e-003	3.1400e-003	0.0416	1.7000e-004	0.8599	1.1000e-004	0.8600	0.0899	1.0000e-004	0.0900	0.0000	15.2897	15.2897	2.2000e-004	0.0000	15.2953
Total	8.8000e-003	0.0913	0.0701	6.0000e-004	1.1807	3.0000e-004	1.1810	0.1237	2.8000e-004	0.1240	0.0000	58.1270	58.1270	2.4400e-003	0.0000	58.1980

4.0 Operational Detail - Mobile

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	Tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.577543	0.034512	0.211971	0.105609	0.011838	0.004411	0.018435	0.025668	0.001868	0.001481	0.005453	0.000808	0.000603

CalEEMod Version: CalEEMod.2016.3.2

Page 12 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 13 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 14 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 – Sacramento County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Unmitigated	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005
Total	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005	
Total	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.0000e-005	8.0000e-005	0.0000	0.0000	9.0000e-005	

7.0 Water Detail

7.1 Mitigation Measures Water

CalEEMod Version: CalEEMod.2016.3.2

Page 17 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 18 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

CalEEMod Version: CalEEMod.2016.3.2

Page 19 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II; Section 1-2 - Sacramento County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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CalEEMod Version: CalEEMod.2016.3.2

Page 20 of 20

Date: 9/17/2018 11:15 AM

Two Rivers Trail Phase II, Section 1-2 - Sacramento County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

APPENDIX C. HABITAT MAPS (SEGMENTS 3 THROUGH 6)



TWO RIVERS TRAIL PHASE II PROJECT

<ul style="list-style-type: none"> Biological Study Area Ordinary High Water Mark (OHWM) ✿ Elderberry Shrubs¹ Segments 3-6 Project Footprint Permanent Impacts Temporary Impacts 	<p>Vegetation Classification</p> <ul style="list-style-type: none"> Annual Grassland Mixed Scrub Riverine Ruderal Urban Valley Foothill Riparian 	<p>Trees (limited to trees in the Project Footprint)²</p> <ul style="list-style-type: none"> ● Black Locust ● Black Walnut ● Box Elder ● Oak 	<ul style="list-style-type: none"> ● Cottonwood ● Sycamore ● Tree of Heaven ● Willow 	<p>1 Elderberry shrubs mapped in the Project Footprint and within 165-feet of the Project Footprint.</p> <p>2 Trees were only mapped within the Project Footprint in Segments 3-6</p>	<p>0 50 100 feet</p> <p>1 inch = 100 feet</p>	<p>Sources:</p> <ul style="list-style-type: none"> - City of Sacramento, 2018 - AWE 2018 - ESRI Aerial Imagery, August 9, 2017 	<p>Locator Map</p>
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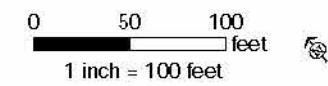


TWO RIVERS TRAIL PHASE II PROJECT

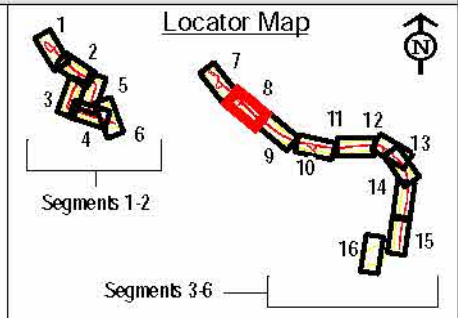
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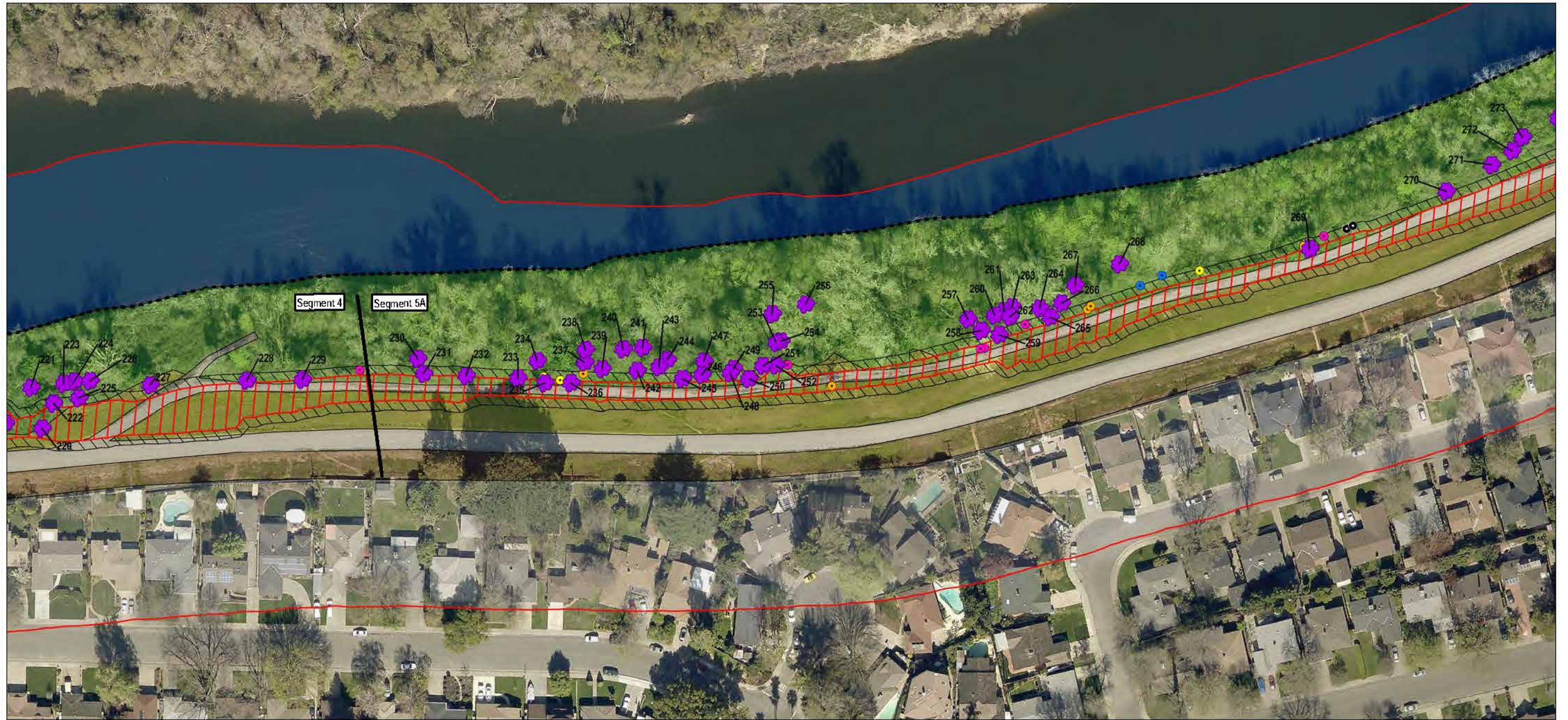
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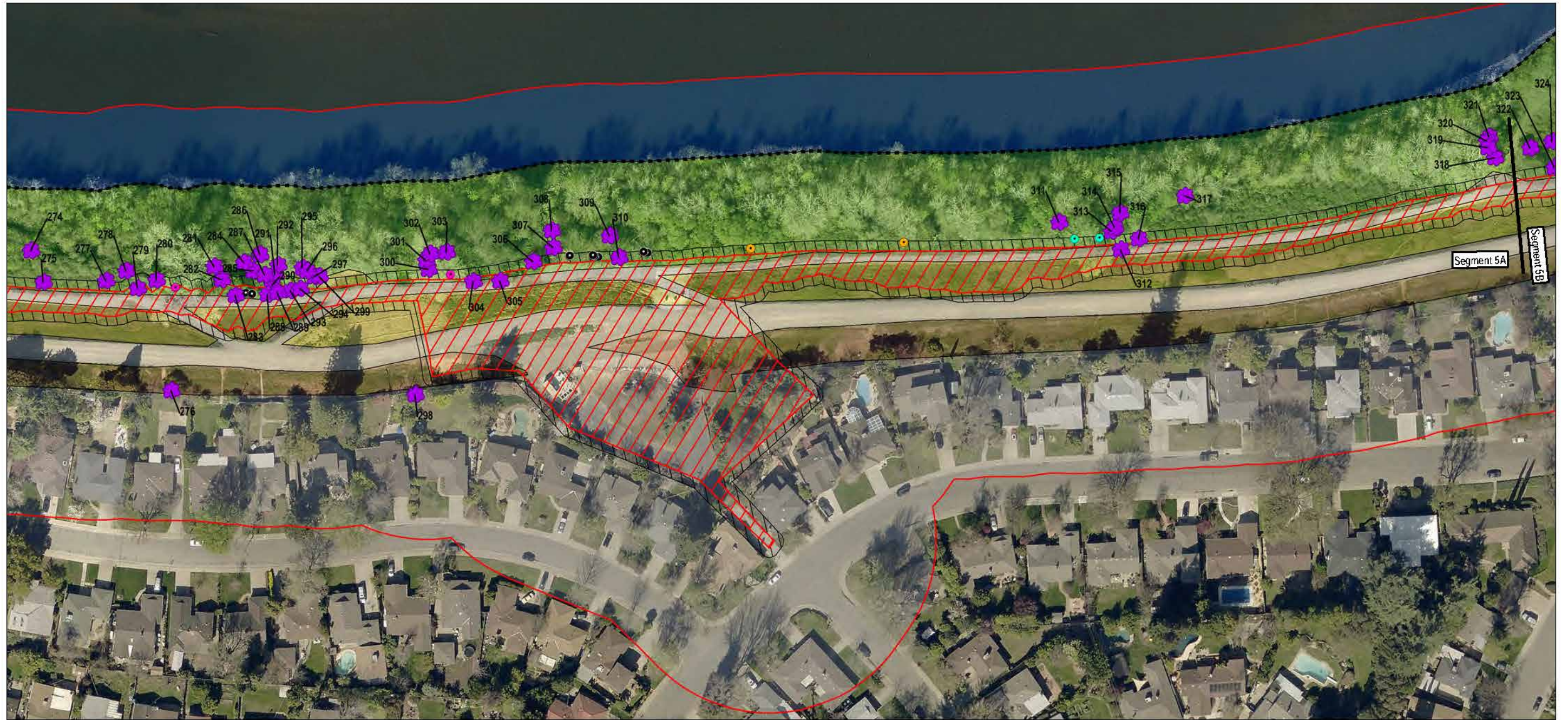
Sources:
 - City of Sacramento, 2018
 - AWE 2018
 - ESRI Aerial Imagery, August 9, 2017





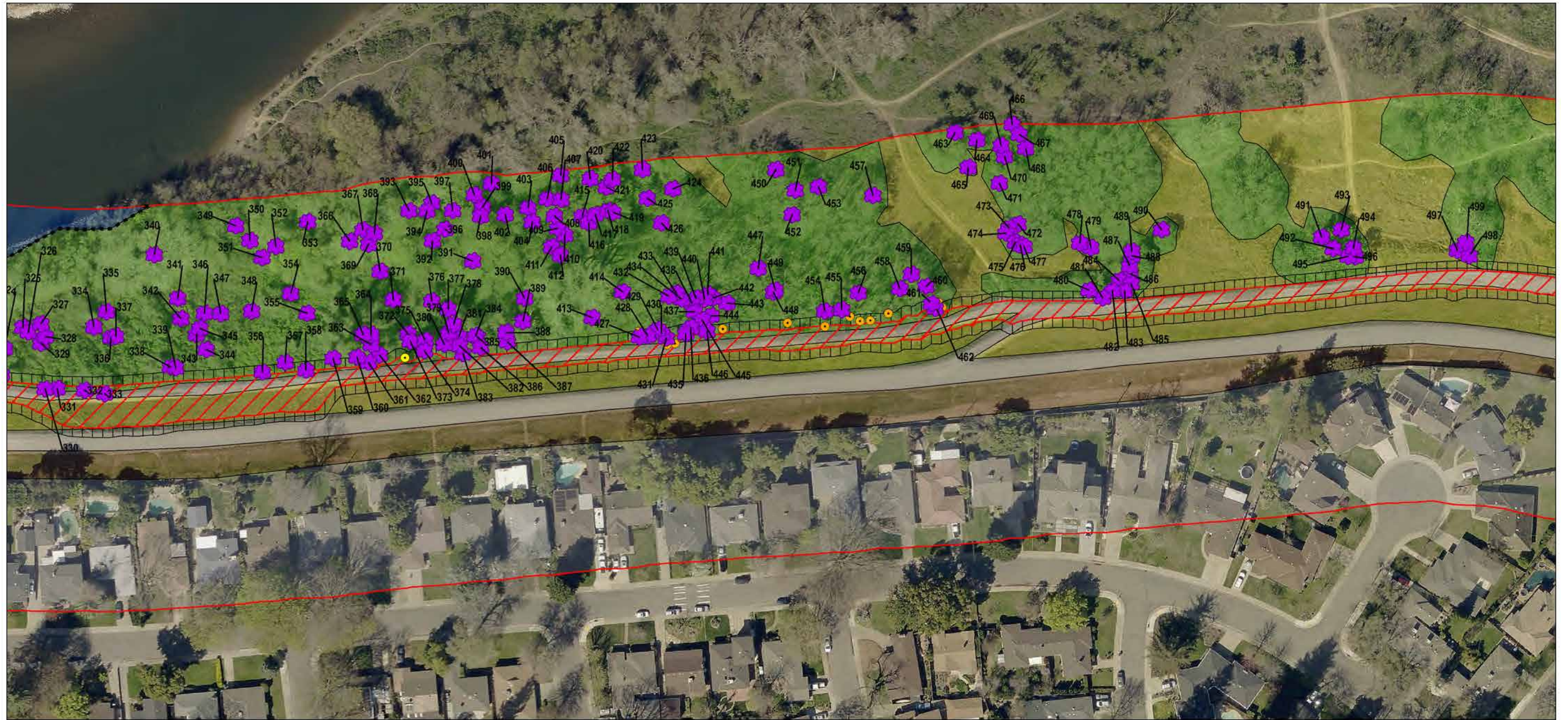
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TWO RIVERS TRAIL PHASE II PROJECT

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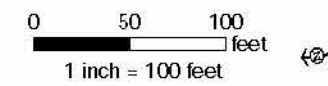


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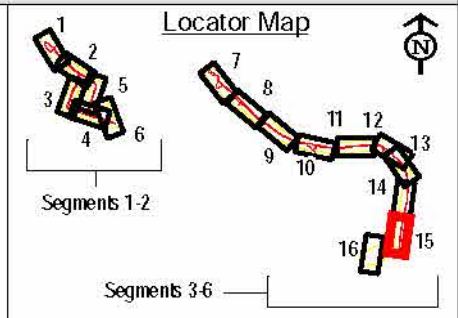
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| Segments 3-6 Project Footprint | Riverine | Box Elder | Willow |
| Permanent Impacts | Ruderal | Oak | |
| Temporary Impacts | Urban | | |
| | Valley Foothill Riparian | | |

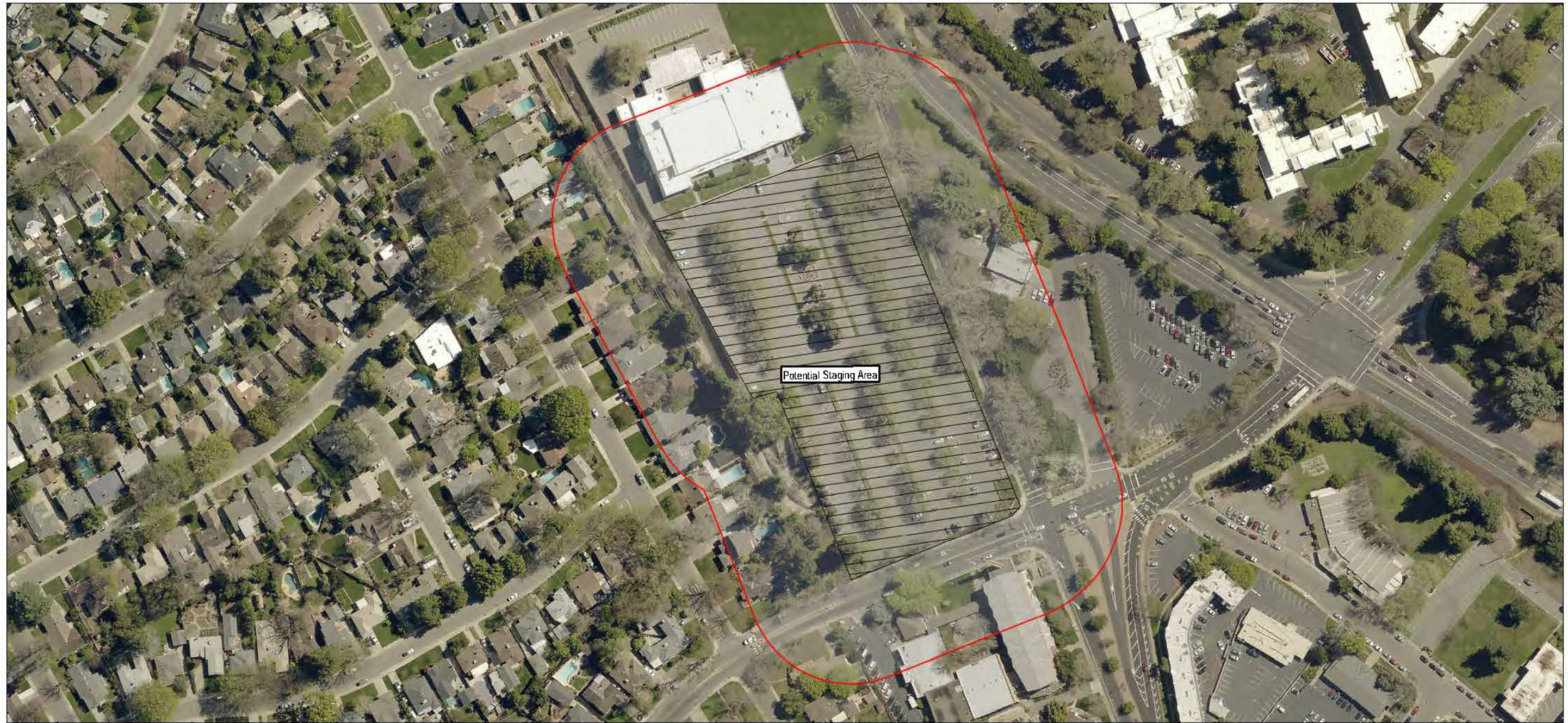
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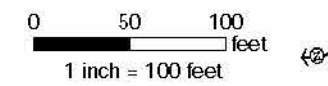


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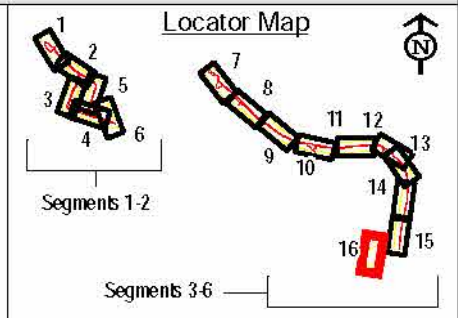
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APPENDIX D. PHASE I ENVIRONMENTAL SITE ASSESSMENT

Download from the City website as a separate file.

**Appendix B. NOP & Public Scoping Comments
Received**

B.1 Summary of Comments and Comment Letters

Two Rivers Trail Phase II: Written Comments regarding Notice of Preparation

COMMENTS	DATE	NOTES
AGENCIES		
Regional SAN	May 22, 2019	
County of Sacramento Environmental Management Division	May 31, 2019	
California Native American Heritage Commission	June 7, 2019	
County of Sacramento Regional Parks	June 11, 2019	MND comment treated as NOP comment at request of agency.
California Department of Transportation	June 19, 2019	
California Department of Fish and Wildlife	June 20, 2019	
Sacramento Metropolitan Air Quality Management District	June 21, 2019	
ORGANIZATIONS		
SMUD	June 19, 2019	
Save the American River Association	June 19, 2019	
Save Don't Pave (Soluri Meserve)	June 19, 2019	
INDIVIDUALS		
Craig Rakela	March 25, 2019	Pre-NOP comment received.
Trevor Neely	May 21, 2019	
Dan Ruiz	May 21, 2019	
Pam Kennedy	May 28, 2019	
Patrick Brown	June 8, 2019	
Daniel Thomas	June 8, 2019	
Matt Mitchell	June 11, 2019	
Toni Pizetti	June 11, 2019	
J. Scott Coatsworth	June 12, 2019	
Jason Grefrath	June 13, 2019	
Mark Guzman	June 13, 2019	
Steven Andrews	June 17, 2019	
Carla DuCray	June 17, 2019	
Barbara Debert	June 17, 2019	
Patrick Brown	June 17, 2019	
Sheri Opp	June 18, 2019	
Stephanie Shelley	June 18, 2019	
Brian Nowicki	June 19, 2019	
Stephanie Jentsch	June 19, 2019	
Irene Gotta	June 19, 2019	
Susan Hausmann	June 19, 2019	
Stuart Reeves	June 19, 2019	

COMMENTER	DATE	NOTES
Jack Sales	June 22, 2019	



May 22, 2019

Mr. Tom Buford
City of Sacramento – Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

**Subject: Notice of Preparation of an Environmental Impact Report
for the Two Rivers Trail Project - Phase 2 (SCH
201802058)**

Dear Mr. Buford,

Sacramento Regional County Sanitation District (Regional San) has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the City of Sacramento's (City) Two Rivers Trail Project, Phase 2 and has the following comments.

The City propose to construct the remainder of Phase 2 of the Two Rivers Trail by extending the Class 1 bicycle and pedestrian trails for 3.4 miles. The proposed project will be located along the south bank of the American River, west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge.

Regional San Advisories:

1. Regional San has the 24-inch Mode 2 sewer force main (Regional San operating system S23) located on the northwest side of westbound Business 80 (APN: 001-0170-006) within the proposed project's boundaries. This facility is considered decommissioned by Regional San; however, the subject facility will need to be protected in place during any construction activities.

If you have any questions regarding this letter, please feel free to contact me at (916) 876-6104 or by email: armstrongro@sacsewer.com.

Sincerely,

Robb Armstrong

Robb Armstrong
Regional San Development Services & Plan Check

Main Office

10060 Goethe Road
Sacramento, CA 95827-3553
Tel: 916.876.6000
Fax: 916.876.6160

Treatment Plant

8521 Laguna Station Road
Elk Grove, CA 95758-9550
Tel: 916.875.9000
Fax: 916.875.9068

Board of Directors

Representing:

County of Sacramento

County of Yolo

City of Citrus Heights

City of Elk Grove

City of Folsom

City of Rancho Cordova

City of Sacramento

City of West Sacramento

Prabhakar Somavarapu

District Engineer

Ruben Robles

Director of Operations

Christoph Dobson

Director of Policy & Planning

David O'Toole

Director of Internal Services

Joseph Maestretti

Chief Financial Officer

Nicole Coleman

Public Affairs Manager

www.regionalsan.com

**Environmental Management
Department**

Marie Woodin, Director



May 31, 2019

Tom Buford
City of Sacramento Community Development Department
Environmental Planning Services
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Dear Mr. Buford:

**SUBJECT: LEA COMMENTS RE: NOTICE OF PREPARATION OF EIR FOR THE
TWO RIVERS TRAIL PHASE II PROJECT (SCH 2018102058)**

The Sacramento County Environmental Management Department (EMD) has reviewed the Notice of Preparation (NOP) of an EIR for the Two Rivers Trail Phase II project. EMD acts as the Local Enforcement Agency (LEA) for the California Department of Resources, Recycling, and Recovery (CalRecycle) in Sacramento County. As such, EMD has authority and responsibility for regulatory oversight of solid waste handling and disposal sites in the City and County of Sacramento. Pursuant to Title 14 and Title 27 of the California Code of Regulations (CCR), the LEA is required to review and approve post-closure land use plans and to act as a responsible agency under CEQA.

This project which would include construction of class 1 bicycle and pedestrian trails on the south bank of the American River, including through a portion of the City's 28th Street Sanitary Landfill (SWIS No. 34-AA-0018) and adjacent disposal site properties that, like the 28th Street Landfill, are regulated by the LEA. The adjacent disposal site properties are currently under requirement by the LEA to be brought into compliance with State Minimum Standards for disposal sites by their owners under the authority of 27 CCR, section 21100(d). The disposal sites, collectively known to the LEA as the 28th ST Landfill West Sites are discussed in the August 26, 2016 Phase I Report prepared for CalRecycle by Ninyo and Moore. They are:

- Dellar Landfill/Old Sac City, SWIS No. 34-AA-0182
- SMUD N. City Substation, SWIS No. 34-0005
- SMUD Substation E, SWIS No. 34-CR-0006
- Cannon (Old Sac City), SWIS No. 34-CR-5001
- Bell (Old Sac City), SWIS No. 34-CR-5002
- SP Railroad (Old Sac City), SWIS No. 34-CR-5003
- Scollan (Old Sac City), SWIS No. 34-CR-5005
- California Almond Growers Exchange SWIS No. 34-CR-0007

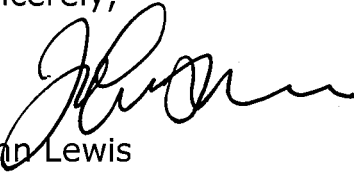
EMD appreciates the opportunity to review the NOP and provides the following comments regarding the portion of the project that may boarder or pass through the 28th Street Landfill and the adjacent disposal site properties listed above:

- 1) The 28th Street Landfill is a closed landfill that received municipal solid waste during its operation. The landfill was certified closed in 1998. Although the facility no longer receives waste, it still generates landfill gas due to the breakdown of waste which is controlled by a landfill gas extraction and flare system. Landfill gases are flammable and potentially explosive and despite landfill gas control, there is the potential for landfill gas to enter structures and migrate from the site. Like the 28th Street Landfill, most of the West site properties also generate landfill gas and there is the potential for it to enter structures and migrate from the site. With the exception of the Dellar Landfill, these sites do not yet have landfill gas control systems. Because of the possibility of gas migration, the LEA recommends that enclosed structures to be built outside landfill boundaries not be built within 1000' of landfill waste. If structures are to be built within 1000' of waste, continuous gas monitoring of the structure should be provided and they should be built in a manner that would reduce the likelihood of gas accumulation within the structures, such as with a protective foundation membrane layer, or other protective measures as specified in 27CCR, section 21190(g).
- 2) Within the landfill boundaries, all construction must comply with 27 CCR, section 21190 post-closure land use requirements (see attachment to this letter), including submittal of plans to the LEA for all proposed postclosure land uses, other than non-irrigated open space, on sites implementing closure or on closed sites. The LEA shall review and approve proposed postclosure land uses if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste.
- 3) 27 CCR, sections 20530 and 21135 require the landfill operator to provide site security. In the case of the 28th ST Landfill, this includes perimeter fencing, signage, and other measures. If the proposed project interferes with these measures, alternative site security measures may be required by the LEA.
- 4) 27 CCR, section 20750, requires site maintenance. Landfill infrastructure such as landfill gas monitoring and control equipment should be protected. If damaged during construction of the project or by visitors, repair or replacement will be required by the LEA.
- 5) As a general caution, it should be noted that Landfills are prone to settlement as waste decomposes over time. Also, landfills may produce odors and, in addition to flammable methane, landfill gases may include harmful trace gases.

Tom Buford
May 31, 2019
Page 3

Please contact me at (916) 876-7279 or Chris Hunley at (916) 876-7277, if you have any questions.

Sincerely,



John Lewis
Environmental Specialist III
Environmental Management Department
Solid Waste Program

CH:JL:tk

Attachment: 27 CCR, section 21190

c: Dawn Plantz, CalRecycle
Gino Yekta, CalRecycle
John Febbo, City of Sacramento

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27 CCR § 21190 - Postclosure Land Use

(a) Proposed postclosure land uses shall be designed and maintained to:

- (1) protect public health and safety and prevent damage to structures, roads, utilities and gas monitoring and control systems;
- (2) prevent public contact with waste, landfill gas and leachate; and
- (3) prevent landfill gas explosions.

(b) The site design shall consider one or more proposed uses of the site toward which the operator will direct its efforts, or shall show development as open space, graded to harmonize with the setting and landscaped with native shrubbery or low maintenance ground cover.

(c) All proposed postclosure land uses, other than non-irrigated open space, on sites implementing closure or on closed sites shall be submitted to the EA, RWQCB, local air district and local land use agency. The EA shall review and approve proposed postclosure land uses if the project involves structures within 1,000 feet of the disposal area, structures on top of waste, modification of the low permeability layer, or irrigation over waste.

(d) Construction on the site shall maintain the integrity of the final cover, drainage and erosion control systems, and gas monitoring and control systems. The owner or operator shall demonstrate to the satisfaction of the EA that the activities will not pose a threat to public health and safety and the environment. Any proposed modification or replacement of the low permeability layer of the final cover shall begin upon approval by the EA, and the RWQCB.

(e) Construction of structural improvements on top of landfilled areas during the postclosure period shall meet the following conditions:

- (1) automatic methane gas sensors, designed to trigger an audible alarm when methane concentrations are detected, shall be installed in all buildings;
- (2) enclosed basement construction is prohibited;
- (3) buildings shall be constructed to mitigate the effects of gas accumulation, which may include an active gas collection or passive vent systems;
- (4) buildings and utilities shall be constructed to mitigate the effects of differential settlement. All utility connections shall be designed with flexible connections and utility collars;
- (5) utilities shall not be installed in or below any low permeability layer of final cover;
- (6) pilings shall not be installed in or through any bottom liner unless approved by the RWQCB;
- (7) if pilings are installed in or through the low permeability layer of final cover, then the low permeability layer must be replaced or repaired; and
- (8) periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with s20933 of Article 6, of Subchapter 4 of this Chapter.

(f) The EA may require that an additional soil layer or building pad be placed on the final cover prior to construction to protect the integrity and function of the various layers of final cover.

(g) All on-site construction within 1,000 feet of the boundary of any disposal area shall be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building, unless an exemption has been issued:

(1) a geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;

(2) a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;

(3) a geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;

(4) perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;

(5) the venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;

(6) automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and

(7) periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (s20920 et seq.).

Note: Authority cited: Sections 40502 and 43020, Public Resources Code; and Section 66796.22(d), Government Code. Reference: Sections 43021, 43103 and 44105, Public Resources Code; and Section 66796.22(d), Government Code.

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



Governor's Office of Planning & Research

June 10, 2019

STATE CLEARINGHOUSE

June 7, 2019

Adam Randolph
City of Sacramento, Public Works Department
915 I. St, Rm 2000
Sacramento, CA 95814

RE: SCH# 2018102058 Two Rivers Trail Phase II, Sacramento County

Dear Mr. Randolph:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,



for
Katy Sanchez
Associate Environmental Planner

cc: State Clearinghouse



County of Sacramento

Tom Buford
Principal Planner
Community Development Department
City of Sacramento
300 Richards Blvd, Third Floor
Sacramento, CA 95811

November 5, 2018

RE: Two Rivers Trail (Phase II) Initial Study/Proposed Mitigated Negative Declaration

Dear Mr. Buford:

I am writing to comment on the Two Rivers Trail (Phase II) Initial Study.

TREE REMOVAL

The Initial Study examines permanent and temporary tree impacts, but excludes Segments 1 and 2 because construction of those segments will be in the future (Initial Study, p. 38). Segment 1 and a portion of Segment 2 lie within the American River Parkway, approximately ½ a mile. While the impacts were not examined at this time, the Department requests that the City examine the tree impacts when construction on Segments 1 and 2 is expected through an Initial Study addendum.

Construction on Segments 3 through 6 will permanently remove 22 trees and temporarily affect 72 additional trees due to trimming. Mitigation 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees states "...to compensate for permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at 1:1 ratio..." (Initial Study, p. 46). The American River Parkway Advisory Committee (ARPAC) and County Recreation and Park Commission recommends replanting native trees and shrubs on-site, rather than off-site. Removal of invasive plants is also encouraged (ARPAC; June 15, 2018, County Recreation and Park Commission; November 15, 2018).

ENFORCEMENT

The description of trail enforcement responsibility in the Initial Study is unclear. "The project site is located within the City of Sacramento and within the Woodlake and Paradise Beach ARPP areas. The Sacramento County Park Ranger Unit is responsible for day-to-day patrol and law enforcement within the Parkway. The City of Sacramento Police (SPD) and Sacramento County Sheriff's Department have concurrent law enforcement responsibilities within their respective jurisdictions where those jurisdictions overlap with the Parkway. ..." (Initial Study, p. 81). Consistent with Phase 1 of the Two Rivers Trail, the enforcement of the Two Rivers Trail is the responsibility of the City of Sacramento and these responsibilities should be defined in a lease agreement with the County for construction and operation of the trail on County land.

November 26, 2018

On June 15, 2018, the ARPAC voted to approve staff recommendation to amend the existing lease of real property and joint use agreement for the Two Rivers Trail or establish a new lease of real property and joint use agreement prior to final approval of 100% construction drawings by County Recreation and Park Commission. The ARPAC and County Recreation and Park Commission recommend the lease and joint use agreement clearly define the responsibilities of the City for maintenance and enforcement activities for the trail. The County Recreation and Park Commission recommends the lease and joint use agreement be approved by the Board of Supervisors prior to review of 100% construction drawings by the County Recreation and Park Commission. (County Recreation and Park Commission; November 15, 2018).

Thank you for the opportunity to comment.

Cordially,

A handwritten signature in blue ink, appearing to read "Liz Bellas", with a stylized flourish extending to the right.

Liz Bellas
Deputy Director

CC: Adam Randolph, Project Manager, City of Sacramento

DEPARTMENT OF TRANSPORTATION**DISTRICT 3**

703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 634-7616
FAX (530) 741-4111
TTY 711
www.dot.ca.gov/dist3



*Making Conservation
a California Way of Life.*

June 19, 2019

GTS# 03-SAC-2018-00465
SCH# 2018102058

Tom Buford
Principal Planner
City of Sacramento
Community Development Department
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Two River Trail Phase II: Notice of Preparation (NOP) – Draft Environmental Impact Report (EIR)

Dear Mr. Buford:

Thank you for including California Department of Transportation (Caltrans) in the application review for the project referenced above. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this local development for impacts to the State Highway System (SHS) in keeping with our mission, vision and goals for sustainability/livability/economy, and safety/health. We provide these comments consistent with the state's mobility goals that support a vibrant economy and build communities.

The proposed Two Rivers Trail Project (Project) would construct the remainder of Phase II of the Two Rivers Trail by extending the Class 1 bicycle and pedestrian trail on the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge. The approximately 3.4 miles of new Class 1 trail, located primarily along the waterside toe of the levee, would generally consist of an 8-foot-wide paved path with a 2-foot-wide compacted shoulder on the inner side and a similar 4- to 6-foot-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail. As part of the extension of the Project, the trail will cross State Route 51 (SR 51) and the State's right-of-way (ROW). Based on the information provided, Caltrans provides the following comments:

ROW Engineering:

There are two (2) Caltrans projects that may impact the schedule of the Project. Both

Tom Buford
City of Sacramento
June 19, 2019
Page 2

projects are being worked on concurrently and involve acquisition of Fee Real Property Rights and Temporary Construction Easement Rights from the County and City of Sacramento. These two Caltrans projects are within the footprint of the proposed Project, specifically Segment 3 as identified in the Initial Study/Mitigated Negative Declaration. We recommend the Project coordinate with Caltrans District 3 Project Manager, Clark Peri (clark.peri@dot.ca.gov), on the projects below as the acquisitions of real property rights may conflict or have an impact on the Project as well as the footprint for the proposed potential staging area in Segment 3.

1. SR 51 Bridge Deck Replacement (Caltrans Project ID: 3F070)
2. SR 51 (Capital City) Corridor Improvements: J Street to Arden Way (Caltrans Project ID: 0H931)

Encroachment Permit:

An encroachment permit will be required from Caltrans for any work performed on the State ROW, if not previously obtained. To apply, a completed encroachment permit application, environmental documentation, and five sets of plans clearly indicating State ROW must be submitted to:

Hikmat Bsaibess
California Department of Transportation
District 3, Office of Permits
703 B Street
Marysville, CA 95901

Please provide our office with copies of any further actions regarding this project. We would appreciate the opportunity to review and comment on any changes related to this development.

If you have any questions regarding these comments or require additional information, please contact Uzma Rehman, Intergovernmental Review Coordinator for the City of Sacramento, by phone (530) 741-5173 or via email to uzma.rehman@dot.ca.gov.

Sincerely,



ALEX FONG, Branch Chief
Office of Transportation Planning
Regional Planning Branch – South

From: [Adam Randolph](#)
To: [Tom Buford](#); [Weiss, Ray](#)
Subject: FW: Comments on the NOP for the Two Rivers Trail Phase II Project (SCH: 201802058)
Date: Friday, June 21, 2019 6:41:17 AM

FYI, Received yesterday afternoon.

From: Wood, Dylan@Wildlife <Dylan.A.Wood@wildlife.ca.gov>
Sent: Thursday, June 20, 2019 5:43 PM
To: Adam Randolph <ARandolph@cityofsacramento.org>
Cc: Wildlife R2 CEQA <R2CEQA@wildlife.ca.gov>
Subject: Comments on the NOP for the Two Rivers Trail Phase II Project (SCH: 201802058)

Dear Mr. Randolph:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of an Environmental Impact Report (EIR) from the City of Sacramento for the Two Rivers Trail Phase II (Project) in Sacramento County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) The Project is subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law (Fish & G. Code, § 86) of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be applicable. CDFW also administers the Native Plant Protection Act, Natural Community Conservation Program, and other provisions of the Fish and Game Code that afford protection to

California's fish and wildlife resources.

ENVIRONMENTAL SETTING

CDFW recommends three progressive steps in project impact evaluations: habitat assessment, detection surveys, and impact assessment in evaluating whether projects will have impacts to special-status species. Habitat assessments are conducted to evaluate the likelihood that a site supports wildlife species and their habitats. Detection surveys provide information needed to determine the potential effects of proposed projects and activities on those species and habitats. Impact assessments evaluate the extent to which wildlife species and their habitat may be impacted directly or indirectly, on and within a reasonable distance of proposed CEQA project activities. CDFW recommends that the EIR includes a complete environmental assessment of the existing biological conditions within the Project area including but not limited to the type, quantity, and locations of the habitats, flora and fauna. Maps and information regarding the habitat assessment and survey efforts should be included within the EIR. Any surveys of the biological conditions and related environmental analysis should be completed by qualified personnel with sufficient experience in the wildlife and habitats associated with the Project.

To identify a correct environmental baseline, the EIR should include a complete and current analysis of special-status and locally unique species with potential to be impacted by the Project. CEQA guidelines § 15125, subdivision (c) requires lead agencies to provide special emphasis to sensitive habitats and any biological resources that are rare or unique to the area. This includes sensitive communities present at the project site including but not limited to streambeds, riparian habitats, elderberry savannah, and a wild/scenic river. CDFW recommends that the environmental documentation identify natural habitats and provide a discussion of how the proposed project will affect their function and value.

IMPACT ASSESSMENT AND MITIGATION MEASURES

Based on habitat assessments and survey results, the EIR should clearly identify and describe all short-term, long-term, permanent, or temporary impacts to biological resources under CDFW's jurisdiction, including all direct and foreseeable indirect impacts caused by the proposed project.

The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f).) The EIR should demonstrate that the significant environmental impacts of the project were adequately investigated and discussed, and it must permit the significant effects of the project to be considered in the full environmental context. CDFW also recommends that the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the project's significant impacts upon fish and wildlife and their habitat. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (Guidelines Section 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for

mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions.

The EIR should discuss the project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to resources under CDFW's jurisdiction or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects.

The EIR should incorporate mitigation performance standards that would ensure that significant impacts are reduced as expected. Mitigation measures proposed in the EIR should be made a condition of approval of the project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. Likewise, CDFW recommends any mitigation proposal be directly related the American River Parkway, given the value of its resources for local species and residents.

Fully Protected Species

The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles, birds and mammals. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

One Fully Protected Species, white-tailed kite (*Elanus leucurus*), is present within the Project area. Because of the species' status, any impact could be considered significant under CEQA. Therefore, CDFW recommends the EIR identify white-tailed kite nests and analyze potential impacts to the species. A combination of avoidance measures or design considerations can be effective in reducing impacts to the species.

Threatened, Endangered, Candidate Species

One State-listed species, Swainson's hawk (*Buteo swainsoni*), is present within 500 feet of the proposed project in addition to numerous occurrence records along the American River Parkway (CDFW 2019, CNDDDB layer in BIOS). The loss of a nest or nest tree or discontinuation of use of the nest tree during Project implementation would be considered take under CESA. CDFW recommends surveying the proposed Project route prior to circulation of the final EIR. Surveys should be conducted in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). With survey results, the EIR should evaluate the potential for take and proposed avoidance or minimization measures to reduce potential impacts to

Swainson's hawk. If impacts to listed species are expected to occur even with the implementation of these measures, mitigation measures shall be proposed to fully mitigate the impacts to State-listed species (Cal. Code Regs., tit. 14, § 783.2, subd. (a)(8)). CDFW recommends the draft EIR disclose an Incidental Take Permit if take is anticipated. Likewise, CDFW encourages early consultation with staff to determine appropriate measures to offset project impacts and facilitate future permitting processes.

CDFW also recommends including analysis of impacts to aquatic habitats under the context of CESA. Given the fluctuations in flow of the American River, Project impacts may have a direct or indirect effect on these species and habitats.

Lake and Streambed Alteration Agreement Program

Notification to CDFW is required, pursuant to Section 1602 Fish and Game Code if a Project proposes activities that may substantially divert or obstruct the natural flow of water; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. The Project description has proposed activities that will be subject to Notification under Section 1602 of the Fish and Game Code.

CDFW approval of projects subject to Notification is facilitated when the environmental documentation discloses the impacts to and proposes measures to avoid, minimize, and mitigate impacts to perennial, intermittent, and ephemeral rivers, streams, and lakes, other features, and any associated biological resources/habitats present within the Project study area. CDFW relies on the Lead Agency environmental analysis when acting as a responsible agency if it is necessary to issue a Lake or Streambed Alteration Agreement for the Project. Addressing the CDFW comments ensures that the environmental document appropriately addresses project impacts and facilitating the approval of the Project. As such, CDFW recommends the draft EIR contain a complete list of activities including grading, crossings, bridges, culverts, etc. and temporary facilities such as staging areas, spoil sites, etc. These activities should be analyzed as it relates to substantial adverse effects to fish and wildlife resources. This analysis should include identification of habitat types and impacts to those habitats. Please visit <https://www.wildlife.ca.gov/Conservation/LSA> for more information about obtaining a Lake or Streambed Alteration Agreement.

Migratory Birds and Birds of Prey

Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C., §§ 703-712). CDFW implemented the MBTA by adopting the Section 3513 of the Fish and Game Code. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Potential habitat for nesting birds and birds of prey is present within the project area. The proposed project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the project footprint and its close vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take should be included in the EIR.

Measures to avoid the impacts should include species specific work windows, biological monitoring, installation of noise attenuation barriers, etc.

Other Impacts to Biological Resources

CDFW's initial review of the Project has also identified other factors that may impact biological resources:

- Climate Change – Mature tree removal may contribute to climate change in Sacramento and increase stressors to wildlife
- Microclimate- Removal of vegetation may impact habitat functionality specifically wildlife or fish that depend on localized shaded habitat
- Homeless Population- Installation of new trails may encourage increased use by homeless residents. Camps or dwellings created by homeless have potential to impact additional habitat, disrupt typical wildlife behaviors, or impact water quality
- Fisheries- The American River serves as an important fishery for the Sacramento region. Impacts from implementation of the Project may impact the fishery

CDFW recommends the draft EIR provide analysis for each of the factors listed above.

Thank you for the opportunity to provide initial feedback on the proposed Project, CDFW would like to express its willingness and availability to work with Project proponents to develop appropriate strategies to avoid, minimize, and mitigate potential impacts.

Sincerely,

Dylan Wood

California Department of Fish and Wildlife
Environmental Scientist
(916) 358-2384

Every Californian should conserve water. Find out how at:



SaveOurWater.com · Drought.CA.gov

June 21, 2019

Submitted via E-mail

Tom Buford, Principal Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
E-mail: tbuford@cityofsacramento.org

RE: Sac Metro Air District comments on the Notice of Preparation of an Environmental Impact Report for the Two Rivers Trail Phase II project (SCH 2018102058)

Dear Mr. Buford:

Thank you for providing the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the proposed Two Rivers Trail Phase II project (project) to the Sacramento Metropolitan Air Quality Management District (Sac Metro Air District) for review. The proposed project would construct the remainder of Phase II of the Two Rivers Trail by extending the Class 1 bicycle and pedestrian trail on the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge (see Figure 1). The approximately 3.4 miles of new Class 1 trail, located primarily along the waterside toe of the levee, would generally consist of an 8-ft-wide paved path with a 2-ft-wide compacted shoulder on the inner side and a similar 4- to 6-ft-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail. The trail would be engineered to be load-bearing to accommodate maintenance and emergency vehicles. Sac Metro Air District staff (District Staff) comments on the project NOP and design recommendations follow.

California Environmental Quality Act (CEQA) Comments:

Construction (Short-term) Emissions: If the EIR concludes that the project is likely to exceed the Sac Metro Air District mass emission threshold for construction of 85 lbs/day of NO_x; District staff recommends the project comply with the Construction-Generated Criteria Air Pollutant and Precursor Emissions policies from the *Guide to Air Quality Assessment in Sacramento County*¹.

Operational Emissions: District staff note that the project is not anticipated to exceed the Sac Metro Air District threshold of significance for operational emissions.

Design Recommendations:

¹ The Sac Metro Air District's *Guide to Air Quality Assessment in Sacramento County* provides methods to analyze air quality impacts from plans and projects. Chapter three of the guide covers Construction-Generated Criteria Air Pollutant and Precursor Emissions and is available at:

<http://www.airquality.org/LandUseTransportation/Documents/Ch3ConstructionFINAL5-2017.pdf>

Trail linkage to Erlewine Circle: District staff note that there is an existing access road & flight of stairs between the trail and Erlewine Circle approximately 400 feet southeast of the trail undercrossing of the Capital City freeway. District staff recommend the City consider improvements to this trail connection as a component of this project.

General Comments:

All projects are subject to SMAQMD rules at the time of construction. Specific rules that may relate to construction activities are attached. A complete listing of current rules is available at www.airquality.org or by calling 916-874-4800.

Please contact me at 916-874-2694 or jhurley@airquality.org if you have any questions regarding these comments and recommendations.

Sincerely,

-JJ Hurley

*Joseph James Hurley
Associate Air Quality Planner/Analyst
Land Use & CEQA section-Communication, Land Use & Mobile Sources Division
jhurley@airquality.org
916.874.2694*

Cc: Paul Philley, SMAQMD

ATTACHMENT

SMAQMD Rules & Regulations Statement (revised 1/2017)

*The following statement is recommended as standard condition of approval or construction document language for **all** development projects within the Sacramento Metropolitan Air Quality Management District (SMAQMD):*

All projects are subject to SMAQMD rules in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916.874.4800. Specific rules that may relate to construction activities or building design may include, but are not limited to:

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD early to determine if a permit is required, and to begin the permit application process. Other general types of uses that require a permit include, but are not limited to, dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.

Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc.) with an internal combustion engine over 50 horsepower is required to have a SMAQMD permit or a California Air Resources Board portable equipment registration (PERP) (see Other Regulations below).

Rule 402: Nuisance. The developer or contractor is required to prevent dust or any emissions from onsite activities from causing injury, nuisance, or annoyance to the public.

Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities, storage or any other construction activity to prevent airborne dust from leaving the project site.

Rule 414: Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU PER Hour. The developer or contractor is required to install water heaters (including residence water heaters), boilers or process heaters that comply with the emission limits specified in the rule.

Rule 417: Wood Burning Appliances. This rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.

Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.

Rule 453: Cutback and Emulsified Asphalt Paving Materials. This rule prohibits the use of certain types of cut back or emulsified asphalt for paving, road construction or road maintenance activities.

Rule 460: Adhesives and Sealants. The developer or contractor is required to use adhesives and sealants that comply with the volatile organic compound content limits specified in the rule.

Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

Other Regulations (California Code of Regulations (CCR))

17 CCR, Division 3, Chapter 1, Subchapter 7.5, §93105 Naturally Occurring Asbestos: The developer or contractor is required to notify SMAQMD of earth moving projects, greater than 1 acre in size in areas “Moderately Likely to Contain Asbestos” within eastern Sacramento County. The developer or contractor is required to comply with specific requirements for surveying, notification, and handling soil that contains naturally occurring asbestos.

13 CCR, Division 3, Chapter 9, Article 5, Portable Equipment Registration Program: The developer or contractor is required to comply with all registration and operational requirements of the portable equipment registration program such as recordkeeping and notification.

13 CCR, Division 3, Chapter 9, Article 4.8, §2449(d)(2) and 13 CCR, Division 3, Chapter 10, Article 1, §2485 regarding Anti-Idling: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes. These apply to diesel powered off-road equipment and on-road vehicles, respectively.

From: [Nicole K. Goi](#)
To: [Tom Buford](#)
Cc: [Rob Ferrera](#); [Emily Bacchini](#); [Jose Bodipo-Memba](#)
Subject: Two Rivers Trail Phase II / K15125000 / NOP
Date: Wednesday, June 19, 2019 10:57:19 AM
Attachments: [SAC_K15125000_Two Rivers Trail Phase II NOP.FINAL.pdf](#)

Hi Tom,

Attached, please find SMUD's response letter to the project listed above.

Please confirm receipt of this email with attachment.

Thank you,

Nicole Goi

Regional & Local Government Affairs

w.916-732-5322 | c.916-468-8181 | nicole.goi@smud.org

SMUD | Powering forward. Together.

6301 S Street, Mail Stop A313, Sacramento, CA 95817



Sent Via E-Mail

June 19, 2019

Tom Buford
Community Development Department
300 Richards Blvd.
Sacramento, CA 95811
tbuford@cityofsacramento.org

Subject: Two Rivers Trail Phase II / K15125000 / NOP

Dear Mr. Buford:

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the proposed Notice of Preparation (NOP) for the Two Rivers Trail Phase II Project (Project, 2018102058). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

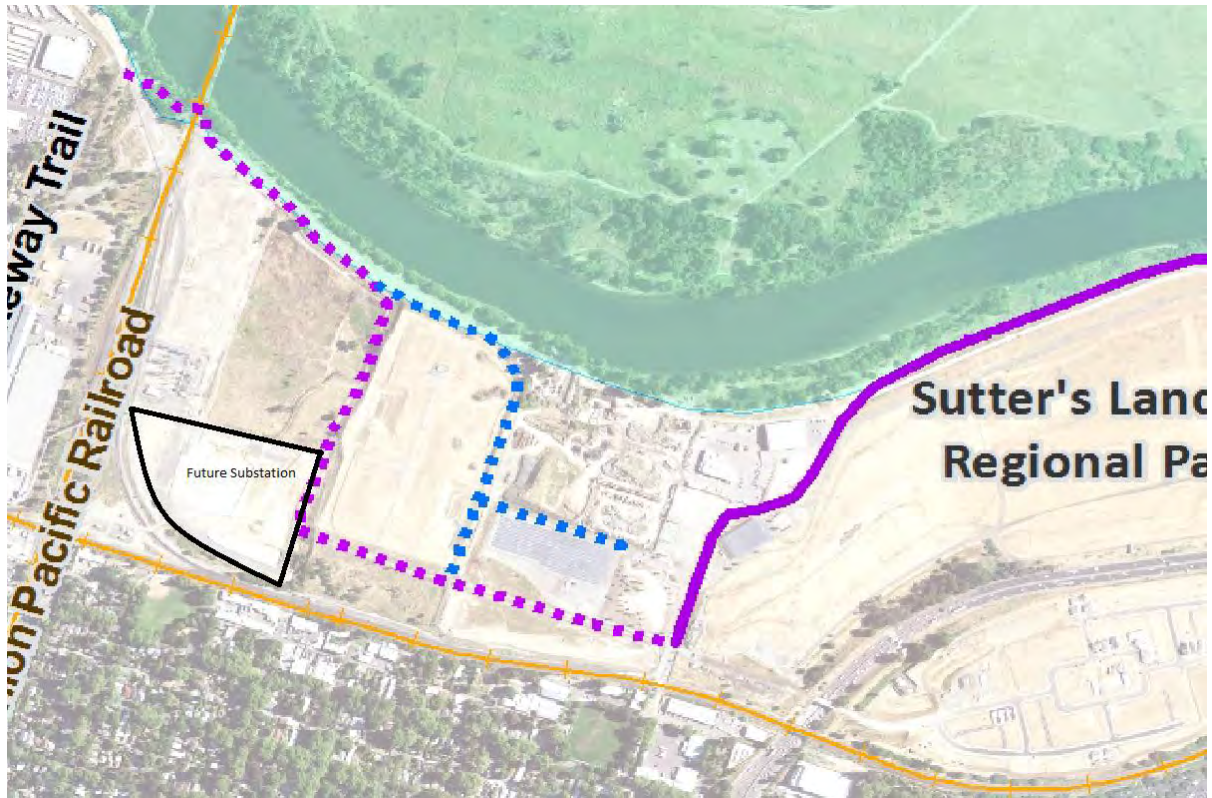
It is our desire that the Project NOP will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
 - <https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services>
 - <https://www.smud.org/en/Corporate/Do-Business-with-SMUD/Land-Use/Transmission-Right-of-Way>
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery

More specifically, SMUD would like to have the following details related to the electrical infrastructure incorporated into the project description:

The area defined by this Notice of Preparation (NOP) is within the Sacramento Municipal Utility District's (SMUD) 21kV service territory. The proposed bike trail routes do not impact the existing 21kV infrastructure in the area defined by this NOP. SMUD does have a future substation construction project that would border the South-West corner of the preferred planned construction

path (black polygon). The alternate planned construction path would not come into contact with the proposed substation site.



The project owner shall submit to SMUD's Real Estate Services an application for transmission encroachment along with detailed project plans. Approval of proposed development is by executed agreement only.

SMUD has three 115 kilo-volt (KV) transmission lines in the project area of Western Segment 1. The project proposes a potential staging area in this segment. The staging area would be located below the 115kV transmission lines. Further SMUD has two lattice steel transmission towers located adjacent to the South Side of the American River Levee.

1. All personnel and boom-operated equipment performing work within SMUD's easement shall obey Electrical Safety Orders of California Title 8, Subchapter 5.
2. Project owner shall protect the lattice steel transmission towers from vehicular impact. This can be accomplished by use of temporary construction barriers.
3. All excavations within 25 feet of any structure will require the submittal of construction procedures, drawings, calculations and shoring plans reviewed and stamped by a licensed California Civil Engineer. Excavations having a depth exceeding 10 feet and within 50 feet of any structure may also require the submittal of same. In some locations and for some projects a geotechnical report, stamped by a licensed California Geotechnical Engineer may also be required. All excavation work within 25 feet of any structure shall be performed in the presence of a SMUD Inspector.
4. All above ground metallic facilities proposed within the SMUD easement must be properly

grounded. Grounding plans should be stamped by a California licensed electrical engineer, meet all National Electric Safety Code requirements, and be submitted to SMUD for review.

5. Add the following note to all applicable drawings:

WARNING – SMUD 230KV OVERHEAD TRANSMISSION LINES ARE LIVE –

Electrocution Potential. Project owner or Contractor shall take all appropriate safety measures when working near or under lines, including placement of OSHA-required warning signage. On-site SMUD inspection required when working within 25 feet of SMUD facilities. Contractor shall contact SMUD Inspection Services at (916) 732-4990 to schedule inspection. 72-hour advance notice is required. Project owner or Contractor shall protect SMUD facilities during construction and notify SMUD immediately if facilities are damaged. Any damage to existing facilities shall be repaired at the project owner or contractor's expense.

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this NOP.

If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Rob Ferrera, at rob.ferrera@smud.org or 916.732.6676.

Sincerely,



Nicole Goi
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
Nicole.goi@smud.org

Cc: Rob Ferrera

SAVE THE AMERICAN RIVER ASSOCIATION
8836 Greenback Lane, Suite C
Orangevale, California 95662

June 19, 2019

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

RE: Comments on the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project

Dear Mr. Buford,

These comments are submitted on behalf of Save The American River Association (SARA), founded in 1961 to establish the American River Parkway, and continuing to this day as Guardian of the lower American River and Parkway.

Thank you for the opportunity to provide scoping comments on the Notice of Preparation as the City begins a full environmental review of the above mentioned project. SARA, along with Habitat 2020, submitted letters in response to the City's Initial Study/Mitigated Negative Declaration. They are attached here for your reference as you move from an IS/MND to an EIR.

Below are additional comments in response to the Notice of Preparation of Environmental Impact Report and Scoping Meeting for the Two Rivers Trail Phase II Project dated May 21, 2019:

Biological Resources: The EIR must include the impacts of the loss of specific riparian resources including trees, shrubs, grasses, woody debris (decaying logs and twigs) and soil born carbon (not including below root system), on Climate Change. Measuring these losses will lead to a determination of the potentially significant impacts on the health and safety of current and future residents of Sacramento County. Quantifying the impacts of the loss of riparian resources important to carbon sequestration, urban heat island effect, etc., can also help determine the economic costs of reducing the climate resiliency of the City and the County. It is important to remember that "The American River Parkway is an OPEN SPACE GREENBELT which extends approximately 29 miles from Folsom Dam at the northeast to the American River's confluence with the Sacramento River at the southwest." (The American River Parkway Plan, Chapter 1, Introduction, Page 9) (Emphasis added) In order to preserve and even increase the values that an "open space greenbelt" bring to Sacramento residents, businesses and institutions, indiscriminate elimination and/or degradation of habitat types cannot be entertained.

Land Use/Planning: The EIR should account for future City and County projects impacting the American River Parkway's natural resources. One example of such a project is the proposed automobile/light

rail/bike bridge across the American River at Truxel Road estimated to eliminate nearly five (5) acres of prime riparian habitat. The accumulation of such losses can potentially result in a de facto Parkway land use change from an “open space greenbelt” to urban development with patches of vegetative cover.

Besides a No Project, the EIR must study an alternative to the proposed Phase II project. Suggested alternatives for study is a paved trail on top of the levee, and an on street dedicated bike route beginning at Sutter’s Landing Park and ending at Sacramento State University where bicyclists can transition to the Jedidiah Smith Memorial (bicycle) Trail.

Again, please refer to the attached comment letters, incorporated here to provide more details informing the City’s Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project.

Thank you for the courtesy of your time and attention.

Sincerely,

Betsy Weiland, Land Us Chair
Save The American River Association
Tel: (916) 488-3894

November 29, 2018

Mr. Tom Buford, Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, California 95811

Subject: Comments in response to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Two Rivers Trail Phase II project, in particular segments 3 through 6

Dear Mr. Buford,

Save The American River Association (SARA) appreciates the opportunity to submit the following comments regarding the above subject.

SAVE THE AMERICAN RIVER ASSOCIATION

SARA was founded in 1961 to establish the American River Parkway. Beginning with a band of 7, including Effie Yeaw, the long held vision to preserve the natural landscape and open up recreation opportunities along the American River took years to achieve. A Sunset Magazine article written to commemorate the Parkway's dedication in 1964, described a county official as saying "Thus far, everybody but the United Nations has had a hand in the Parkway." (Sunset, October, 1964) The American River Parkway is the gift far thinking, civic minded community members and leaders gave to us, the residents of a rapidly expanding urban area who increasingly value the places that give us relief from our fast paced and over built world. SARA continues today, as we have for the past 57 years, to be the lead voice and advocate protecting the natural and recreation values of the American River and Parkway.

Towards that end, we urge the City of Sacramento to withdraw the IS/MND for the Two Rivers Trail Phase II project because the document fails to study an alternative(s) to the location of the trail as described in segments 3 through 6. At 10% construction design and a project map, it is abundantly clear that the project, as proposed, is inconsistent with the Concepts, Goals and Policies of the American River Parkway Plan. The City of Sacramento is a signatory to the Plan and it is state law. We expect, as stated by Liz Bellas of Sacramento County Regional Parks, that the Two Rivers Trail Phase II, Segments 1 and a portion of Segment 2, will be covered for impacts to the American River Parkway through an Initial Study Addendum.

"WHILE THE IMPORTANCE OF RECREATIONAL OPPORTUNITIES IS RECOGNIZED, PRESERVING THE NATURAL QUALITIES OF THE PARKWAY RESOURCE IS ESSENTIAL." (The American River Parkway Plan, Chapter 1, Page 9) (Emphasis added)

The proposed Two Rivers Trail Phase II project is only generally drawn on the Woodlake and Paradise Beach Area Plan maps. The Discovery Park policy 10.4.2, as well as the Plan's FEIR are more specific in describing the Two Rivers Trail Phase II extension:

“10.4.2 Support construction of a Two Rivers Trail extension to H Street that will provide direct connectivity from California State University Sacramento to downtown Sacramento. THE TRAIL SHOULD BE CONSTRUCTED ON TOP OF THE LEVEE WHERE FEASIBLE.” (The American River Parkway Plan, Chapter 10, Page 150) (ARPP FEIR, Page 6-84) (Emphasis added)

The FEIR and the Plan included the possibility of an extension of the Two Rivers Trail from Tiscornia Park to H Street, with the caveat that the levee be considered as the first alignment choice. As a result, by eliminating the levee top as a trail alignment option, SARA believes that the proposed project is no longer compliant with the Plan’s Concepts, Goals and Policies, and severely damages the Parkway’s ecosystem. As the Plan describes, the American River Parkway is a continuous open space greenbelt along the American River providing functional wildlife corridors and habitats for the 200+ bird species that either live in or migrate through the Parkway, as well as numerous mammals, amphibians, reptiles and fish. It is important to remember that just because a project/activity is shown on an area plan map and/or described in Plan policies, it is neither a mandate or requirement that said project be built or activity permitted.

The Plan initially identifies some future projects and/or activities that could be considered compliant and even desired, if, after detailed environmental review and analysis, with public notice and comment, were found to be consistent with the Concept, Goals, Policies, General Land Use and Area Plan Maps of the Plan.

“10.0 AREA PLANS

Area Plans

10.3 Adoption or modification of an Area Plan or any of its components SHALL (emphasis added) be determined to be consistent with the County General Plan, provided that it is consistent with the goals, Parkway-wide policies, and General Land Use Map of the Plan, and approved by the County Board of Supervisors.” (The American River Parkway Plan, Chapter 2, Page 38)

Again, SARA believes that because the IS/MND has eliminated the study of a levee alignment where feasible in accordance with Policy 10.4.2, the Two Rivers Trail Phase II, Segments 3 through 6 in particular, is inconsistent with the Plan, as follows:

“3.0 RESOURCES OF THE PARKWAY

Terrestrial Resources Policies

3.2 Agencies managing the Parkway SHALL (emphasis added) protect, enhance and expand the Parkway’s native willow, cottonwood, and valley-oak dominated riparian and upland woodlands that provide important shaded riverine aquatic habitat (SRA), seasonal floodplain, and riparian habitats; and the native live oak and blue oak woodlands and grasslands that provide important terrestrial and upland habitat.” (The American River Parkway Plan, Chapter 2, Page 16)

The use of the word “shall” assigns a legal meaning, and therefore a priority, to the dictates of this and any other policy where “shall” appears.

The IS/MND concludes that “Impacts to Valley foothill riparian habitat would be significant.” It acknowledges the fact that “Impacts related to protected trees would be significant.” And most

significantly the IS/MND acknowledges that compensating for the loss of the Valley foothill riparian habitat and protected trees has not yet been determined. The IS/MND cites the Sacramento City's Master EIR for their 2035 General Plan concluding that given the extent of urban development the preservation and/or restoration of riparian habitat would likely occur outside of City limits. (Pages 37-38)

The proposed Two Rivers Trail Phase II project as currently described is not consistent with Policy 3.2.

3.4 Management of the Parkway SHALL (emphasis added) ensure the protection of the Parkway's resources, its environmental quality and natural values. A resources impact monitoring plan SHALL be developed that clearly defines criteria and standards to monitor, evaluate and protect the Parkway's resources from overuse, and provide steps to be taken to restore areas that have been overused." (The American River Parkway Plan, Chapter 2, Page 17)

Without the in-progress Resources Impact Monitoring Plan, the IS/MND cannot possibly conclude that the consequential loss of Valley foothill riparian habitat and protected trees in the American River Parkway can be reduced to less than significant. It is the Resources Impact Monitoring Plan that will hopefully look at and incorporate in its findings the cumulative impacts of activities from ongoing projects implemented by agencies and utilities including but not limited to PG&E, SMUD, WAPA, Sacramento Area Flood Control Agency, and the Army Corps of Engineers to name a few. It will more than likely include the ongoing work of the Bank Protection Working Group/Technical Resource Advisory Committee whose upgraded flood protection action plan includes areas within the Two Rivers Trail Phase II project. The effects of climate change on the Parkway's natural resources must be quantified when possible.

Aquatic Communities Policies

3.11 Agencies managing the Parkway SHALL identify, enhance and PROTECT (emphasis added):

- a areas where maintaining riparian vegetation will benefit the aquatic and terrestrial resources
- b current shaded riverine aquatic habitat; and
- c other areas that can support a shaded riverine aquatic habitat, as time and resources permit, especially as associated with flood control or federally/state mandated species protection projects. (The American River Parkway Plan, Chapter 2, Page 18)

The Two Rivers Trail Phase II project, as aligned, does not PROTECT (emphasis added) the riparian vegetation essential to the aquatic and terrestrial resources, including the birds, animals, and fish that depend on them. In fact, project segments 3 through 6 alone will permanently remove 22 trees and temporarily affect 72 additional trees due to trimming. Not only does the project itself not protect, through avoidance, the riparian vegetation, but the IS/MND boldly suggests that the purchase of off-site credits at a mitigation bank (IS/MND, Page 46) complies with the Parkway Plan policy to PROTECT (emphasis added) the riparian vegetation benefiting aquatic and terrestrial resources.

RECREATIONAL USE OF THE PARKWAY

Walking, Hiking and Running

Policy 5.13 related to the Jedediah Smith Memorial (bicycle) Trail and the pedestrian trail adjacent to it says in part: "...The pedestrian trail will be adjacent to the existing paved Jedediah Smith Memorial (bicycle) Trail where practical given the width of the area and location of trees and other natural resources. New trail sections SHALL (emphasis added) avoid heavily vegetated areas and low floodplain locations subject to frequent inundation...." (The American River Parkway Plan, Chapter 2, Page 23)

While the Two Rivers Trail Phase II is not the Jedediah Smith Memorial (bicycle) Trail with adjacent pedestrian trails, this policy serves as another example of the Plan's intent and the high priority it places on protecting the natural values of the Parkway for the benefit and enjoyment of people, plants and animals.

/

TRAILS AND ACCESS

Trails

8.11 Parkway trail connections to other local, regional and State trails SHALL (emphasis added) be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway's ecosystem. (The American River Parkway Plan, Chapter 2, Page 33)

Following on the previous discussion of bicycle and trail design in the Parkway, the Two Rivers Trail Phase II is a trail connection. It connects to the Sacramento Northern Bikeway Trail, the Jedediah Smith Memorial (bicycle) Trail and to Sacramento City streets. This project, as designed, does not minimally damage the Parkway's ecosystem. The damage is significant, and cannot be mitigated to less than significant as described in the IS/MND.

The Two Rivers Trails Phase II project runs through the Woodlake and Paradise Beach areas of the American River Parkway. While a paved bicycle trail is a permitted use through the mainly protected area land use designation, the policies governing these areas are also clear regarding the protection of the natural resources:

"PROTECTED AREA

DESCRIPTION AND PURPOSE

Protected Areas contain tracts of naturally occurring vegetation and wildlife, which although capable of sustaining light to moderate use with minimal alterations to the natural landscape, would be easily disturbed by heavy use. Protected Areas differ from Nature Study Areas in that general access in Protected Areas is encouraged, and convenience-type facilities are permitted to accommodate the anticipated increase in users. However, facilities and other improvements are limited to those which are needed for the enjoyment of the natural environment. EMPHASIS IS ON PROTECTION AND RESTORATION OF LARGE PORTIONS OF RELATIVELY NATURAL AREAS WHICH STAND A BETTER CHANCE OF PRESERVATION THAN SMALLER PIECES AND PROVIDE BETTER SUPPORT FOR WILDLIFE." (The American River Parkway Plan, Chapter 7, Page 117) (Emphasis added)

The Woodlake Area and the Paradise Beach Area of the Parkway designate 100+ acres as protected. These large areas are important for the opportunity they provide to be protected and restored as a

support for viable populations of wildlife. The IS/MND did not address the global impact of the project to potentially decrease or even prevent these areas from fulfilling their critical ecological niche.

“Woodlake Area

10.16 Protect, enhance, and expand native habitats that benefit fish and wildlife species including the creation of a seasonal wetland habitat, grassland restoration for raptor foraging habitat, and restoration of riparian and woodland habitat.

“10.17 Protect and enhance existing resources in the area including habitat for threatened and endangered species, such as Valley Elderberry Longhorn Beetle, and the state registered archaeological site.” (The American River Parkway Plan, Chapter 2, Page 40)

“Paradise Beach

10.26 Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area.

Paradise Beach is an area of the Parkway that consists of 106 acres of Protected Area and 2.2 acres of Developed Recreation....Vegetation is a mixture of riparian, grassland, and shrub grassland communities, interspersed with sparsely vegetated sand. This area contains many elderberry bushes and provides excellent habitat for the Valley Elderberry Longhorn Beetle. Large cottonwoods dominate the northernmost tip of the area.

Due to limited, access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area. Permanent structures and other physical changes that would attract groups of users should not be introduced to the area. Acceptable activities include fishing, kayaking, wading, sunbathing, hiking, volleyball, and related beach activities.” (The American River Parkway Plan, Chapter 10, Page 164)

A point is being made by County Parks that the extension of the paved bicycle trail through Paradise Beach and Glen Hall Park will encourage people to ride their bikes to enjoy the aquatic activities that are permitted in this area of the Parkway. This will help, they say, alleviate the problem of too few parking spaces in the Glenn Hall Park parking lot.

The project should address the issue of providing bike racks for those cyclists wishing to enjoy Paradise Beach activities. How many racks and where will they be placed?

3.0 RESOURCES OF THE PARKWAY

Terrestrial Resource Policies

3.6 Excavation of aggregate/soil material should not be permitted except as a part of a flood control, environmental restoration or recreation improvement project approved in accordance with the provision of this Plan. Objectives of the project will:

- a. result in a net improvement to the health of the Parkway ecosystems,

- b. not cause “harm” to the Parkway
- c. utilize material within the Parkway, where feasible, prior to being transferred out of the Parkway and
- d. prohibit commercial mining

The IS/MND did not address c. Can the excavated material resulting from the project, segments 3 through 6, be used elsewhere in the Parkway? The material volume is stated at 6,000 cubic yards. The soil might be valuable for other projects or areas in the Parkway.

The IS/MND did not address c. as it relates to potentially useful removed trees and woody material for habitat restoration in the Parkway.

Under the project construction section of the IS/MND, the following is stated:

“Following construction, the contractor would remove any construction materials and restore all disturbed surfaces to their PRE-PROJECT CONDITION, including replacing fences, repairing asphalt road surfaces, restoring existing slopes and grades, and revegetating affected surfaces through means such as hydroseeding.” (Emphasis added) (IS/MND, Page 15)

How does the above relate to the IS/MND’s Mitigation Measure 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees? Measure 3-6 states that “to compensate for the permanent removal of riparian vegetation associated with trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio....” (IS/MND, Page 46)

Off-site mitigation is not consistent with Policy 3.6 a. and b.

11.0 IMPLEMENTATION

Implementation Policies

11.5 New facilities and programs SHALL not be developed unless the financial resources to operate and maintain them are identified and available. (The American River Parkway Plan, Chapter 11, Page 213)

The IS/MND, under Police Protection Services, is incorrect in stating that enforcement is adequate in the project area. Sutter’s Landing Park, just down river of the Two Rivers Trail Phase II, Sections 3 through 6, suffers untold impacts from lawless behavior. Dogs off leash, illegal camping, off paved trail cycling, littering, loud music, threatening behavior, and the list goes on. This happens on and around the section of the Two Rivers Trail that was just completed. Our County Park Rangers do the best they can to adequately cover the area but they are stretched thin. As are the City Park Rangers and Police.

In order to be compliant with Policy 11.5, Sacramento County should make sure that the City can provide adequate police patrols and protection for the new trail, as well as the resources to make all necessary repairs to maintain the paved and decomposed granite trails, and keep up the required

structures and fencing related to the UP Bridge. Maintenance and replacement of the interpretive and directional signage shall also be included. Appropriate trees/vegetation management related to the trails will also be an operational responsibility and compliant with all environmental rules and regulations.

While SARA has always supported and promoted permitted recreational activities in the Parkway, we believe, on further study, that the Two Rivers Trail Phase II as currently designed is outsized in its impacts to the natural resources of the American River Parkway and the users' experience and expectation. The Jedediah Smith Memorial (bicycle) Trail is the continuous paved bike trail running from the confluence of the Sacramento and American Rivers to Beal's Point. In a particularly sensitive area of the Parkway, where the construction of a paved bike trail connection would cause irreparable harm to the natural resources and the enjoyment of users who reach out to and rely on the American River Parkway as a respite and escape from the built urban environment, the Two Rivers Trail Phase II, in particular segments 3 through 6, must not be built as designed. An Environmental Impact Report is necessary to explore alternatives to providing a dedicated bikeway from Tiscornia Beach to the H Street Bridge.

Thank you for your kind and courteous attention to our concerns. Please feel free to contact me with any questions.

Sincerely,

Betsy Weiland, Land Use Chair
Save The American River Association
flweiland@yahoo.com
(916) 488-3894

CC
Liz Bellas, Sacramento County Parks Department
SARA Board of Directors
SARA Advisory Board

From: [Save Don't Pave](#)
To: [Tom Buford](#)
Subject: Comments on the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project (SCH 2018102058)
Date: Wednesday, June 19, 2019 1:15:57 PM
Attachments: [SDP_scoping_comments_061919.pdf](#)
[18.11.30 MND Comments SDP.pdf](#)

Dear Mr. Buford:

Attached please find the correspondence submitted on behalf of Save Don't Pave regarding the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project (SCH 2018102058). Should you have questions, please do not hesitate to contact us. Thank you for your attention to this matter.

Sincerely,

Amanda Morrow
Save Don't Pave



Save Don't Pave
P.O. Box 19614
Sacramento, CA 95819
(916) 475-4064

June 19, 2019

SENT VIA EMAIL (tbuford@cityofsacramento.org)

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

RE: Comments on the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project (SCH 2018102058)

Dear Mr. Buford:

These comments are submitted on behalf of Save Don't Pave in response to the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Two Rivers Trail - Phase II Project. Save Don't Pave is an unincorporated association comprised of local community members working to save the section of the American River Parkway between Sutter's Landing and the H Street Bridge as a natural recreation option for all to enjoy in its current unpaved state.

Thank you for this opportunity to provide comments as the City prepares the DEIR. Save Don't Pave previously submitted a letter in response to the City's Initial Study/Mitigated Negative Declaration (MND) outlining numerous ways in which the MND failed to include relevant information and fully disclose the project impacts as required under CEQA (incorporated here by reference and as an attachment to this letter.) We request that the DEIR being developed disclose and analyze all of the impacts described in the letter that were not addressed in the MND.

In keeping with the City of Sacramento NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE TWO RIVERS TRAIL PHASE II PROJECT dated May 21, 2019, our additional comments to those incorporated by reference from our letter regarding the MND, will be organized according to the following categories: Biological Resources, Cultural Resources, Geology/Soils Hazards, Hydrology/Water Quality, Public Services, Recreation, and Transportation.

Biological Resources: The EIR needs to analyze the specific riparian resources, protected trees, and the special status species habitat proposed for removal or trimming. In addition, analysis of the effect of construction of the trail on Climate Change in our region needs to be performed; the City needs to include all the positive effects of the existing trees and shrubs along the trail in terms of

cooling and carbon sequestration. Linear parks serve as the “lungs of the city” and the loss of acreage that would result from the construction of this trail needs to be considered.

Geology/Soils Hazards and Hydrology/Water Quality: The EIR needs to provide data on how frequently in the past two decades the American River has risen to the level of the riverside toe road on the Two Rivers Trail Phase II segment. As the unpaved portion of the path is proposed to be decomposed granite, the City needs to determine how often that portion will be washed away in high water and the replacement/maintenance cost needs to be considered as a continuing demand on City revenues.

Public Services: Additional services will be necessary in the future due to this trail. Park Rangers will be needed for enforcement; homeless camp clean up will be necessary, and fire safety will need to be addressed. In addition, flooding and wash-out of the trail needs to be considered. The County of Sacramento added language to the 2008 American River Parkway Plan (Chapter 11) that called for guaranteed funding for additional projects. Because this project will be built in a flood plain, additional costs will ensue and must be considered.

Recreation: The NOP states that one of the project objectives is to “provide a vital recreation link between the Jedediah Smith Trail on the north side of the Parkway, the Sacramento River Parkway, the Sacramento Northern Bikeway Trail, the future Ueda Parkway trails, and the 20th Street bike connection to the Central City.” The DEIR should analyze the existing links to these bike trails, and identify the types of users who are not served by those existing trails and links. The DEIR should clearly identify the types of users the proposed pavement is intended to serve, and provide an analysis of the increased ridership and recreation this project is expected to provide for those users. That is, the DEIR should estimate the increase in recreation that this project would provide, not just the level of bicycle use expected along the proposed paved path. In other words, will paving the trail generate more recreation, or will it simply redistribute recreation that was already happening elsewhere along Parkway bicycle trails? Or will a paved trail replace one type of recreation with another along this section of trail? Furthermore, the DEIR should analyze other scenarios for achieving these linkages, and compare the relative impacts to recreation and the environment.

Transportation: The NOP states that one of the project objectives is to “provide alternative transportation access for commuters and residents in the eastern part of the City, California State University Sacramento (CSUS), Central City, North Sacramento, East Sacramento, and Richards Boulevard area.” The DEIR should analyze the needs of commuters and residents in the named areas. The previous survey included primarily active bicycle commuters and so failed to inform the project with respect to increasing ridership among people who currently perceive obstacles to commuting by bicycle. Furthermore, the results of that survey indicated that the greatest need perceived by bicycle commuters was safer passage through midtown to downtown. Phase II of the Two Rivers Trail does nothing to address this need, nor would the completion of Phase III address this need for the vast majority of bicycle commuters.

The inequity issue of spending inordinate resources on this trail segment instead of other neighborhoods that have been historically underserved was discussed in our MND letter. The City’s Vision Zero Top Five Corridor Study adds yet another example of the inequity of transportation improvements in our City:

In 2017, the City of Sacramento identified the five corridors in Sacramento with the highest numbers of fatal and serious crashes involving pedestrians, bicyclists, and motorists.

The Vision Zero Top Five Corridor Study will analyze the factors that contribute to these corridors' high crash rates. Based on technical analysis, community input, and best practices in roadway safety and design, the study will identify improvements for each of these corridors that can be implemented in the near-term.

- *Marysville Boulevard (North Avenue to Arcade Boulevard)*
- *El Camino Avenue (Del Paso Boulevard to the paved levee trail adjacent to Steelhead Creek)*
- *Broadway / Stockton Boulevard (Martin Luther King Jr. Boulevard to 13th Avenue)*
- *South Stockton Boulevard (McMabon Drive to Patterson Way)*
- *Florin Road (24th Street to Munson Way)*

Clearly these corridors are in areas that have not been well-served by the City. The EIR should look at the land use and planning effects of the concentration of City resources to build this segment while other areas of the City have greater transportation safety needs.

The growing use of short-term motorized cycles and scooters in Sacramento may add additional pressures on the Trail and must be analyzed fully. There is pressure to authorize the use of these vehicles on bicycle and mixed-use trails. If they are authorized, there will be additional pressures on other users. If they are not authorized there will be additional enforcement pressures.

CEQA Requirement for Alternative Analysis

According to CEQA, an EIR must describe a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic project objectives, and would avoid or substantially lessen any of the proposed project's significant effects. Additionally, a "No Project" alternative must be analyzed. An EIR must evaluate the comparative merits of the alternatives.

In addition to a "no project" alternative, the DEIR should consider a "no pavement" alternative that acknowledges the current use of this area by cyclists as a transportation route. The current lack of pavement is apparently not a barrier to the many commuters and recreational cyclists that currently use this area. The existing path and the gravel road on the levee crown are currently heavily used for bicycle recreation and commuting by both road and hybrid bicycles. Furthermore, there is currently a 20-foot-wide gravel road along the levee crown for the entirety of the project area. The DEIR should consider including this area as part of the American River parkway trail system as it is, without pavement, not as an off-road bicycle option, but as part of the existent parkway trail system. We acknowledge that current Sacramento County laws and regulations prohibits bicycles on non-paved trails; however, the Sacramento County Department of Regional Parks is currently conducting an Off-Paved Trail Cycling Pilot Program in Woodlake and Cal Expo areas of the American River Parkway (trial period from September 2017 to 2020) to evaluate, "whether off-paved trail cycling can become a permanent recreational use in these areas." The pilot program is setting a precedence to change the current laws and regulations to allow bicycles on non-paved trails, the same could be done for Phase II of the Two Rivers Trail.

In addition the EIR should include a full analysis of a road-based alternative to the Two Rivers Trail Phase II project. This option is discussed in our MND letter and was further mentioned at the scoping meeting. The idea is to create a road-based alternative to Phase Two that would begin at Sutter's Landing Park and end at CSU Sacramento at the Guy West Bridge. This road-based alternative would be extremely low-cost – it would include signage and possible special road markings. There may be minor capital expenses to ensure safety of cyclists, pedestrians, and vehicles. This alternative

would use much less precious bicycle funding and have no deleterious environmental effect. By using already built facilities the Two Rivers Trail becomes more sustainable.

Thank you for your consideration of these comments.

A handwritten signature in blue ink, appearing to read 'Amanda Morrow', with a large, stylized flourish at the end.

Amanda Morrow
President, Save Don't Pave

cc (via email): Osha Meserve, Soluri Meserve, A Law Corporation

Attachment: Comments on the Initial Study/Mitigated Negative Declaration for the Two Rivers Trail Phase II (K15125000). Soluri Meserve, A Law Corporation, on behalf of Save Don't Pave, November 30, 2018.



tel: 916.455.7300 · fax: 916.244.7300
1010 F Street, Suite 100 · Sacramento, CA 95814

November 30, 2018

SENT VIA EMAIL (tbuford@cityofsacramento.org)

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

RE: Comments on the Initial Study/Mitigated Negative Declaration for the Two Rivers Trail Phase II (K15125000)

Dear Mr. Buford:

These comments on the Initial Study/Mitigated Negative Declaration (“MND”) for the Two Rivers Trail Phase II Project, K15125000 (“Project”) are submitted on behalf of Save Don’t Pave. Save Don’t Pave is an unincorporated association comprised of local community members who have serious concerns regarding the City of Sacramento’s (“City”) environmental review of the Project. Save Don’t Pave is working to save the section of the American River Parkway between Sutter’s Landing and the H Street Bridge as a natural recreation option for all to enjoy in its current unpaved state.¹

The MND fails to include relevant information and fully disclose Project impacts as required by the California Environmental Quality Act (Pub. Resources Code, §§ 21000 et seq. [“CEQA”]). In particular, several potentially significant impacts are associated with the Project, necessitating preparation of an Environmental Impact Report (“EIR”) and consideration of a reasonable range of alternative and adequate mitigation to eliminate or reduce Project impacts. Thus, Save Don’t Pave respectfully requests that a

¹ Save Don’t Pave was formed when River Park residents and other users of the nearby section of Parkway learned of the City’s plan to pave the lower riverside toe of the levee. Many citizens were unaware of the City’s plans, so in January 2018, several concerned citizens organized a volunteer effort to go door to door in the River Park community to inform residents of the proposed project, get their opinions on the project, and collect signatures for a petition opposing the project. Since that time, Save Don’t Pave has collected over 1,200 petition signatures opposing the Project as presently proposed, and has worked to make the City aware of the special character and uses of this area that would be lost as a result of the Project.

full EIR be prepared and circulated for public review prior to any further proceedings by the City regarding the Project.

I. Standards Applicable to Negative Declarations

Under CEQA, an EIR is required whenever substantial evidence supports a “fair argument” that a proposed project may have a significant effect on the environment, even when other evidence supports a contrary conclusion. (See, e.g., *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 74 (*No Oil I*)). This “fair argument” standard creates a “low threshold” for requiring the preparation of an EIR. (*Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.) Thus, a project need not have an “important or momentous effect of semi-permanent duration” to require an EIR. (*No Oil I, supra*, 13 Cal.3d at 87.) Rather, an agency must prepare an EIR “whenever it perceives some substantial evidence that a project may have a significant effect environmentally.” (*Id.* at p. 85.) An EIR is required *even if* a different conclusion may also be supported by evidence.

To lawfully carry out a project based on a MND, a CEQA lead agency must approve mitigation measures sufficient to reduce potentially significant impacts “to a point where *clearly* no significant effects would occur.” (Cal. Code Regs. tit. 14 (“CEQA Guidelines”), § 15070, subd. (b)(1) (emphasis added).)² This is assured by incorporation into a Mitigation Monitoring and Reporting Plan (“MMRP”). (CEQA, § 21081.6(a)(1).) “The purpose of these requirements is to ensure that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then

² A lead agency may satisfy its CEQA obligations by preparing a MND instead of an EIR if: (1) revisions in the project would mitigate the effects of the proposed project to a point “where clearly no significant effects on the environment will occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.” (Pub. Resources Code, § 21064.5.) The City must also adopt a legally adequate mitigation monitoring or reporting program in compliance with CEQA. (CEQA Guidelines, § 15074, subd. (d).) To comply with CEQA “[t]he reporting or monitoring program shall be designed to ensure compliance during project implementation.” (Pub. Resources Code, § 21081.6, subd. (a)(1); CEQA Guidelines, §§ 15074, subd. (d), 15097, subd. (a).) The City may not simply rely on a “summary” that merely relists the various mitigation measures in the absence of a discussion of implementation or evidence that the measures will be enforced.

neglected or disregarded.” (*Federation of Hillside & Canyon v. City of Los Angeles* (“Federation”) (2000) 83 Cal.App.4th 1252, 1261.)

Furthermore, an agency will not be allowed to hide behind its own failure to gather relevant data. Specifically, “deficiencies in the record [such as a deficient initial study] may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences.” (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311 (*Sundstrom*)). For example, in *Sundstrom* the court held that the absence of information explaining why no alternative sludge disposal site is available “permits the reasonable inference that sludge disposal presents a material environmental impact.” (*Ibid.*)

For each resource area discussed below, there is substantial evidence supporting a fair argument of a potentially significant impact. Moreover, the mitigation measures included are not legally adequate and do not sufficiently address the potential impacts. Therefore, an EIR is necessary in order to adequately analyze, disclose and mitigate the Project’s environmental impacts.

II. The MND Fails to Provide an Adequate Project Description and Environmental Setting

Although the Project description that CEQA requires of an MND is less detailed than that of an EIR, the MND must include a complete, accurate description of the Project. (CEQA Guidelines, § 15071.) An accurate, stable and finite project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity. (See *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645,655; *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193 (*County of Inyo*) [“(a)n accurate, stable and finite project description is the Sine qua non of an informative and legally sufficient” CEQA document].) The court in *County of Inyo* explained why a thorough project description is necessary:

A curtailed or distorted project description may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal’s benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the ‘no project’ alternative) and weigh other alternatives in the balance.

(*County of Inyo, supra*, 71 Cal.App.3d at 192-93.)

This MND fails to describe all elements of the Project. In particular, the MND fails to include a description of increased maintenance to clear mud and debris that would be needed if a trail is built on the water side of the levee toe due to the frequent flooding of the area. (See Exhibit A, Parkway User Testimony and Photographs Regarding Aesthetic Impacts, p. 10 [showing flooding of Project area] (“Testimony on Aesthetics”).) The MND also fails to discuss all of the likely uses of the Project in its description. The Project would build paved bike trails through the American River Parkway, with the implicit intention of those trails being used. However, accurate information about projected use of the new trail is not included. Such information would provide important insight into the full breadth of the Project and its potential impacts.

In addition, the Project diagrams fail to clearly disclose the proposed location of the Project in relation to existing natural resources and the levees that provide flood protection. (See MND, Figures 1–3.) The figures provided in the MND do not clearly depict the proposed trail Project in relation to other features in the Project area. For instance, existing walking trails are not shown, nor the location of the existing levees to the proposed Project. The Project in relation to the location of sensitive natural resources, such as Heritage trees and Valley elderberry bushes is also not shown, obscuring the Project description.

The MND also fails to disclose likely future actions that would stem from construction of the trail. For instance, the MND fails to acknowledge the potential for future and ongoing impacts to the biological resources through the implementation of Crime Prevention Through Environmental Design (“CPTED”). In CPTED, the City addresses recurring crime or illegal camping at a location by removing vegetation to make that area less attractive for crime or illegal camping. According to the Project website, “The Two Rivers trail will integrate concepts of crime prevention through environmental design (commonly abbreviated as CPTED). The enthusiastic usage of this reach will increase ‘eyes on the trail.’”³ The wooded riparian area along the Project area is extremely narrow, just 60 feet in some places, and any removal of vegetation would dramatically decrease the cover for wildlife and degrade the value of the area as a wildlife corridor. Furthermore, the use of CPTED in many areas would dramatically decrease the visual screen between the levee and the river, degrading the aesthetic value of the area both for users of the path and for boaters on the river.

³ Available at: <https://www.cityofsacramento.org/Public-Works/Engineering-Services/Projects/Current-Projects/Two-Rivers-Trail-Phase-II>.

Before the impacts of a project can be assessed and mitigation measures considered, an initial study must describe the existing environment. (CEQA Guidelines, § 15063, subd. (d)(2).) It is only against this baseline that any significant environmental effects can be determined. (CEQA Guidelines, §§ 15125, 15126.2, subd. (a); see also *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.) According to CEQA Guidelines section 15125, subdivision (a): “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published.” This same requirement applies to a Negative Declaration. (*Communities for a Better Environment v. SCAQMD* (2010) 48 Cal.4th 310, 319.) As the Supreme Court has explained, a comparison must be made between “existing physical conditions without the [project] and the conditions expected to be produced by the project. Without such a comparison, the EIR will not inform decision makers and the public of the project’s significant environmental impacts, as CEQA mandates.” (*Id.* at p. 328.)

The omission of critical setting information renders the MND deficient as a sufficiently informational document. Specific setting information deficiencies within resource sections of the MND are discussed below. Also, as mentioned above, the MND fails to include sufficiently detailed information regarding the proposed Project’s relationship to the location of other trails, levees, and sensitive natural resources, such as Heritage trees and Valley elderberry bushes, hindering analysis of Project impacts.

III. The MND’s Analysis of Potentially Significant Environmental Impacts is Defective and Mitigation Measures in the MND are Inadequate to Reduce Project Impacts to Less than Significant

The MND concludes without adequate explanation that there would be no impacts associated with Aesthetics, Energy, Noise, Public Services, Recreation or Transportation/Circulation that require mitigation. (MND, p. 103.) With respect to the impacts that the MND does conclude require mitigation, the MND also errs in providing the minimum analysis required by CEQA. Specific deficiencies are described below.

A. The Project Would Conflict with Existing Land Uses and Designations

Substantial evidence supports a fair argument that the Project conflicts with applicable land use policies, requiring preparation of an EIR. (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) 42 Cal.App.4th 608, 617–618 (*San Joaquin Raptor I*); *Stanislaus Audubon Society, Inc. v. County of Stanislaus*

(1995) 33 Cal.App.4th 144, 151; *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602–1603; see also CEQA Initial Study Checklist [CEQA Guidelines, appen. G, § IX, subd. (b)] [may project conflict “with any applicable land use plan, policy or regulation . . . adopted for the purpose of avoiding or mitigation an environmental effect.”].) The Project, which is proposed to be located within the American River Parkway, must conform with applicable plans.

The MND incorporates by reference and tiers off other planning documents including the 2035 General Plan Master EIR (“Master EIR”) (MND, p. 4), the American River Parkway Plan 2008 update (“Parkway Plan”) (MND, p. 5), and the Sacramento Bicycle Master Plan (“Master Plan”) (MND, p. 29). However, the Project, as currently proposed, conflicts with these documents. Substantial evidence supports a fair argument that the Project, proposed to be located within a specially protected area, conflicts with these applicable land use policies, and thus an EIR is required. (*Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 931 (*Pocket Protectors*).)

1. MND Land Use Setting Discussion Is Incomplete

The MND fails to recognize the special status of the American River Parkway. The Parkway is protected by the American River Parkway Plan and is a federal and state designated Wild and Scenic River.⁴ Furthermore, in 2017, the American River Parkway attained state conservancy status. (Pub. Resources Code, § 5845 et seq. [creating Lower American River Conservancy Program].) Each of these designations come with protections and considerations, and further cement the American River’s regional importance. The Land Use setting discussion, should have, but does not describe these protections.

2. The Project Is Inconsistent with the City of Sacramento General Plan

The Master EIR concluded that policies in the City’s General Plan, combined with compliance with the California Endangered Species Act (“CESA”), Natomas Basin Habitat Conservation Plan (“NBHCP”) and CEQA would minimize the impacts on special-status species to a less-than-significant level. (See Master EIR, pp. 4.3-10 to 4.3-17.) However, the Master EIR contemplated impacts resulting from a trail at the crown

⁴ Pub. Resources Code, § 5093.54, subd. (e) (state designation) and 16 U.S. Code § 1274, subd. (a)(21) (federal designation); see also American River Parkway Plan, pp. 9, 89–92.

of the levee both by relying on the American River Parkway Plan and considering completion of the Project in 2014. (See Master EIR, pp. 2-36, 4.3-19.)

Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources. (Master EIR, p. 4.3-7.) The Project would encroach on valuable riparian habitat, protected trees, and special status species habitat. (MND, pp. 39-43.) As discussed below, the MND underestimates many of the Project's potential biological impacts despite evidence to the contrary submitted herein. The Project's impacts on the riparian resources of the American River Parkway violate Policy ER 2.1.5.

3. The Project Is Inconsistent with the American River Parkway Plan 2008 Update

The MND incorrectly asserts that the Project is consistent with the Parkway Plan, despite the Project's fundamental conflicts with the Parkway Plan policies. (MND, p. 5; see Exhibit L, Two Rivers Trail Phase II: Inconsistencies with the American River Parkway Plan ("Parkway Plan Inconsistencies").) First and foremost is the inconsistency between the Project's trail design and Parkway Plan policy 10.4.2. Policy 10.4.2 requires the Two Rivers Trail extension to be constructed on top of the levee where feasible. (Parkway Plan, p. 38.) The Project wholly discounts the possibility of a levee crown trail with a vague explanation of geotechnical, maintenance, and neighborhood concerns. (MND, p. 5.)

The MND does not further discuss or ever actually analyze the feasibility of a top of levee trail alignment for the Project. As can be seen from the photo below, much of the Parkway bike trail is already located on top of the levees. The feasibility of placing the trail Project on the levee, or other less environmentally damaging alternatives, must be fully considered.

Recreational multi-use path along the Sacramento River.



(City of Sacramento General Plan, p. 2-266.)

Paradise Beach, designated as a “Protected Area” under the Parkway Plan (Parkway Plan, p. 164), makes up a significant portion of the project area. (MND, p. 5, 10, 21.) Protected areas “contain tracts of natural occurring vegetation and wildlife . . . [which] would be easily disturbed by heavy use.” (Parkway Plan, p. 117.) Protected areas should only have “minor trail improvements, trail stops [and] observation points” to prevent encroachment into sensitive natural communities. (*Ibid.*) More specifically to Paradise Beach, the Parkway Plan cautions against the development of “[p]ermanent structures and any other physical changes that would attract groups of users” due to limited access, annual flooding, and unstable soil. (*Id.* at 164.) Paradise Beach “should remain an informal recreation area” to preserve existing uses and prevent further degradation. (*Ibid.*) The Project would flout each of these requirements by encroaching onto natural communities (see MND, pp. 39-43) and bringing substantially more visitors to the Paradise Beach area (see MND, p. 86).

The Project is also inconsistent with the Parkway Plan’s goal to “provide, protect, and enhance for public use” the American River greenbelt. (Parkway Plan, p. 10.) The Project would prioritize a single use, bicycle transportation, at the expense of numerous existing uses, such as dog-walking, family recreation, family recreation. Notably, improving transportation is not included as a Parkway Plan goal. (Parkway Plan, p. 10.) The Project would not “preserve, protect [or] improve the natural, archaeological, historical and recreational resources of the Parkway” but instead encroach on and impact

these resources. The design and site decisions for the Project create irreconcilable conflicts with the Parkway Plan, which the MND does not disclose or mitigate.

Substantial evidence supports a fair argument that the Project is inconsistent with the Parkway Plan's goals and policies. (See also Exhibit L, Parkway Plan Inconsistencies.) Therefore, an EIR is required to disclose and analyze these land use inconsistencies. (*Pocket Protectors, supra*, 124 Cal.App.4th at 931.)

4. The Project Is Inconsistent with the Sacramento Bicycle Master Plan

The Master Plan “set[s] forth bicycle related investments, policies, programs, and strategies[.]” (Master Plan, p. 1.) One goal of the Master Plan is increasing equitable investments in bicycling facilities for all neighborhoods by 2020. (Master Plan, p. 2.) According to testimony by Jim Brown, of SABA, at the October 18, 2018, meeting of the Sacramento Active Transportation Advisory Committee, many of “projects in the [Bicycle Master] Plan [have been in the Plan] for years and years.” (See Sacramento Active Transportation Commission video, time register approximately 42 minutes).⁵ Despite this goal, the Project would devote considerable resources to serve one of the least disadvantaged areas of the City in terms of bicycle facilities.

The Master Plan identifies East Sacramento as well served by existing bicycling infrastructure. (Master Plan, p. 32 [Equity Analysis Composite Index]; see also Exhibit D, Master Plan Excerpt.) Yet, this \$6.4 million project, which duplicates a world-class bicycle trail that already exists on the north side of the American River, and for which an on-road alternative route already exists that was recently built on Elvas Avenue, uses limited active transportation funds. (See Exhibit D, Master Plan Excerpt [Class II trail on Elvas Avenue].) Many areas in the City are substantially less served by existing bicycle infrastructure than the Project area, and these resources would be better served there. (*Ibid.*) Devoting such considerable resources to this Project would be contrary to the Master Plan's equity goals.

B. The Project May Have Potentially Significant Aesthetics Impacts

“Relevant personal observations of area residents on nontechnical subjects may qualify as substantial evidence for a fair argument. (*Pocket Protectors, supra*, 124 Cal.App.4th at 928, 931.) “[T]he opinions of area residents, if based on direct

⁵ Available at: http://sacramento.granicus.com/MediaPlayer.php?clip_id=4274.

observation, may be relevant as to aesthetic impact and may constitute substantial evidence in support of a fair argument; no special expertise is required on this topic.” (*Id.* at 937.) The concerns and observations regarding the “overall degradation of the existing visual character of the [project] site” can constitute substantial evidence sufficient to raise a fair argument of aesthetic impacts. (*Ibid.*)

Here, Parkway users have significant concerns regarding how the Project would impact the existing visual character of the American River Parkway. (See Exhibit A, Testimony on Aesthetics, pp. 1, 4-7.) Parkway users state that the Project “would drastically change the nature of th[e] trail and degrade . . . this special area. (*Id.* at p. 1.) Clearing the existing trail and vegetation to create the paved trail would “affect the immediate viewshed and the natural experience [it] affords” and the paved trail “would be more naked and hardened[.]” (*Id.* at p. 4.) “Paving th[e] trail will substantially damage scenic resources, including not only the endangered elderberries scattered along the trail and the . . . creatures that feed on them, but also disturb[] the entire ecosystem.” (*Id.* at p. 6.) “[V]isual encounters with nature bring daily peace to all who have access to [the Parkway]” and the Project’s alignment and design directly threaten that scenic resource. (*Ibid.*)

The Project area currently primarily exists in a natural state, including native and non-native trees and shrubs, sand, dirt, brush, habitat and other natural features unique to a riparian area. (MND, p. 21.) In comparison, the Project would be comprised of wide asphalt paths, flanked by decomposed granite, ranging from 14 to 22 feet. (MND, p. 9-10.) Residents who neighbor and frequent the Project area consider these changes to be a substantial degradation of the existing aesthetic character of the Project area. (See Exhibit A, Testimony on Aesthetics, pp. 1, 4-7.)

A comparison of trail sections from Phase I of the Project and the current Project area exemplify the stark aesthetic changes that would result from a change to a Class 1 bicycle trail:



(Exhibit A, Testimony on Aesthetics, p. 2.) As can be seen in the photos provided in Exhibit A, the Project area is currently characterized by a dirt trail, which is very narrow at times, adjacent to and overhung by riparian vegetation and trees; this vegetation provides shade and the experience of being in nature for those who use the area. If the planned vegetation removal takes place (MND, pp. 17, 38-39, 41), much of this area would no longer be shaded and the wider trail, which in narrow sections of the lower bench would remove all vegetation on the lower toe, would feel and function much more like a transportation corridor. Parkway users have explained these changes would essentially destroy the characteristics of the area that create its aesthetic value. “The walking experience on [the existing] trail is like no other experience . . . in Sacramento To pave it is to lose this experience forever.” (Exhibit A, Testimony on Aesthetics, p. 3.)

The impacted residents’ concerns, along with the differences in aesthetic character between the proposed Project and existing conditions, constitute substantial evidence of a fair argument the Project may have significant aesthetic impacts. (*Pocket Protectors*, *supra*, 124 Cal.App.4th at 937–939.) Therefore, an EIR for the Project must be completed to fully evaluate the Project’s aesthetic impacts and consider all of the relevant evidence.

C. The Project May Have Significant Impacts on Recreation

Recreational impacts are another non-technical subject area wherein local residents’ concerns and observations can provide substantial evidence of a fair argument. (See *Pocket Protectors*, *supra*, 124 Cal.App.4th at 937-939.) Here, similar to aesthetics, Parkway users who neighbor and frequent the Project area are concerned over drastic

changes in recreational opportunities that would occur if the Project was constructed. (Exhibit A, Testimony on Aesthetics, pp. 1, 6–7.)

1. *The MND Fails to Disclose Baseline Recreational Use of the Project Area*

The MND presents a truncated and incomplete description of baseline recreational use of the Project area, hindering analysis of the Project’s impacts on recreation. (MND, p. 85.) In particular, the MND fails to describe the existing heavy pedestrian use of the Project area.

In order to help determine baseline use of the area of the area adjacent to the Glen Hall access to Paradise Beach (Segment 5; MND, Figure 3), Save Don’t Pave members collected data using volunteers starting on May 29, 2018 and ending on August 17, 2018. This data is compiled in Exhibit C, Baseline Recreational Use Data. To prepare for data collection, volunteers were provided with on site training regarding the different categories of data being collected and the optimal location for viewing use of Segment 5 of the Project area. Observation shifts lasted for no more than two hours. Shifts were scheduled to cover all daylight hours for one weekday and one weekend day, however they were not completed all on one day, but rather staggered over a few months as volunteer time allowed. Data was collected over a total of 8 weekday shifts, covering the hours from 5:30 a.m. to 9 p.m., and a total of 7 weekend day shifts, covering the hours from 5:30 a.m. to 7:30 p.m. Volunteers were set up facing the levee, and were instructed to categorize users as either: (1) primarily using the top of the levee; (2) primarily using the bottom of the levee; or (3) cross traffic (crossing the bottom of the levee to access the river area). Individual user types were categorized as Adult Pedestrians, Pedestrians appearing to be under 12 years old, Dogs, Runners/Joggers, Bikers, or Other. Survey results are compiled in Exhibit C, Baseline Recreational Use Data.

During the weekday observation shifts, Exhibit C, Baseline Recreational Use Data, depicts that volunteers observed a total of 207 individual users may, in a single day, utilize the top of the levee. 201 individual users may utilize the bottom of the levee, and 667 individual users may cross the lower levee trail. During weekend day shifts, volunteers observed that in a single day, a total of 342 individual users may be on the top of the levee, 286 individual users may be at the bottom of the levee, and 1,365 individual

users crossing the lower levee trail.⁶ This survey data shows that this area of the Parkway is heavily used on both weekdays and weekends by a variety of recreational uses. These uses should have, but were not, considered in the MND's analysis of recreational or other impacts, as described in this comment letter.

2. *The MND Fails to Disclose the Project's Potentially Significant Recreational Impacts*

The MND relies on a false premise for its recreation impacts analysis: that the Project would "expand recreational opportunities . . . by offering a paved multi-use trail." (MND, p. 86.) In fact, the Project would expand one recreational opportunity, biking, at the expense of the existing uses valued by local residents. Just because the City considers these uses to be "informal" (MND, p. 86) does not mean these uses are not worthy of consideration in the MND (see Parkway Plan, p. 164 [as a Protected Area, Paradise Beach should remain an "informal recreation area" to preserve existing uses]).

The MND also fails to consider the potential conflict between recreational uses due to the Project. The Project would introduce new users, and a new use, to the Project area, competing for space. Cyclist use of the trail would be incompatible with existing uses and takes up considerable space. Existing uses would be relegated to a trail shoulder, which would be restricted due to space limitations. (MND, p. 86 [gravel shoulders would be downsized when toe space is limited].) The paved trail would not be limited in such a way. (*Ibid.*) Instead of "taking a leisurely walk along a quiet path thick with wildlife," pedestrians would be forced to be on the lookout for commuting bikers. (Exhibit A, Testimony on Aesthetics, p. 1.) According to the Baseline Recreational Use Data, 1,565 users may attempt to cross the proposed bike path on a weekend day. (See Exhibit C.) Moreover, increasing the number of users in the Project area could accelerate or cause substantial deterioration of the existing recreation facilities, but the MND does not consider this impact.

The aesthetic character of the Project area is a recreational feature as well, and is the primary draw for many users. (Exhibit A, Testimony on Aesthetics, pp. 1-7.) Existing users interact with and appreciate the natural riparian habitat. In a survey conducted by Save Don't Pave of 137 local residents asking about their use of the Project area, over 75 percent cited the natural condition of the area as a principal draw. (Exhibit

⁶ It should be noted that the weekday data includes a shift from 7:30 p.m. to 9 p.m. that is not included in the weekend day data, so likely the weekend day totals would have been even higher than weekday totals if the shifts had covered equal time.

B, Survey of American River Parkway Trail Users (June-Oct. 2018), pp. 2-3 (“Parkway User Survey”).) Bird watching and other recreation involving native species would also be impacted, given the Projects impacts to species habitat. (MND, pp. 40-43.) In order to construct and maintain a 14 to 22-foot trail, many of the natural elements that are the defining characteristics of this existing recreational facility would be significantly impacted. (See MND, p. 39.) Yet the MND does not consider the loss of scenic enjoyment as a loss of recreational opportunity, though the Project would drastically change the character of the area.

Pedestrians currently use the existing trails and frequent the Project area largely because of its unpaved, natural, and riparian character. (Exhibit A, Testimony on Aesthetics, pp. 1-7; Exhibit B, Parkway User Survey, pp. 2-3.) Increased use of a paved trail for recreation and commuting by cyclists would displace at least of portion of these users and thus would cause a substantial physical deterioration of the existing recreational facilities for those users. The Parkway users’ concerns and the Project’s incompatibility with existing uses constitute substantial evidence supporting a fair argument the Project would have significant recreational impacts. For this reason, an EIR is required to fully evaluate how, and to what extent, existing uses would be impacted.

D. The Project May Have Significant Air Quality Impacts

The MND concludes that the Project would not result in any significant air quality impacts and no mitigation is required. (MND, p. 23.) The MND fails to account for impacts associated with maintenance of the Project in areas that frequently flood on the water side of the levee. (See, e.g., Exhibit A, Testimony on Aesthetics, p. 9 [showing flooding, which is frequent in winter].) In addition, though recognizing the expected increase in usage of the area (MND, p. 90) and shortage of parking at Glenn Hall Park (MND, p. 85; ARPP, p. 164), the MND fails to address increased vehicular air emissions and other impacts from Parkway users searching for parking. All of the air quality impacts of the Project, including emissions during operations, must be adequately disclosed before any action on the Project is taken.

E. The Project May have Significant Impacts on Biological Resources

The MND recognizes that the Project would have some impacts on protected species and their habitats in the Project area (MND, p. 31), and included corresponding mitigation measures to allegedly lessen those impacts to below significant levels (MND, pp. 44-52). The Valley Elderberry Longhorn Beetle (“VELB”) and protected trees in the Project area would be particularly impacted by the Project’s construction and operation.

(MND, pp. 38-41.) Contrary to the MND's conclusions, impacts on biological resources may be significant, and alternatives and mitigation measures to avoid or reduce those impacts were not properly considered.

1. *MND's Description of Biological Resource Setting is Inadequate*

The MND fails to disclose that early specimens used to describe this species were collected from the area (U.S. Fish and Wildlife Service 1984). When the VELB was listed as a threatened species under the federal endangered species act by the US Fish and Wildlife Service in 1980 VELB was known from only 10 locations, and this stretch of the American River was one of them (U.S. Fish and Wildlife Service 1984). Currently, portions of the American River Parkway are thought to support some of the most dense populations of VELB known to occur (Talley et al 2007.) The MND fails to describe the importance of the Two Rivers Phase II project area to VELB. Without this perspective, the MND fails to provide a meaningful evaluation of the significance of Project impacts and the adequacy of proposed mitigation.

2. *Significant Impacts to VELB and VELB Habitat*

VELB is a listed as a threatened species under the Federal Endangered Species Act. (MND, p. 35.) The Project area is abundant within the Project area, and evidence indicates a VELB presence as well. (MND, p. 38.) The Project would impact a large number of elderberry shrubs in this important area for VELB. (MND, p. 38.) For Sections 1 and 2 of the proposed Project, the preferred Alternative 1 would have a more severe impact than Alternative 2, 22 permanent removals of bushes demonstrating VELB presence. (MND, p. 32.) The MND does not discuss why Alternative 1, despite having a more significant impact on VELB habitat, is the preferred alternative, or why Alternative 2 is infeasible. Nor does the MND properly consider other alternative siting to avoid or reduce VELB impacts.

In addition, it appears that the MND may underestimate the number of elderberry shrubs that could be impacted by the proposed Project. The U.S. Fish and Wildlife Service 2017 Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle ("FWS Framework") and the MND both state that impacts to elderberry shrubs, and therefore to VELB, may occur as a result of projects within 165 feet of elderberry shrubs. (Exhibit E, FWS Framework, pp. 9-10, 14; MND, p. 9.) The FWS Framework also states that, "Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line depending on the type of activity." (Exhibit E, FWS Framework, p. 11.) Surveys for

elderberry shrubs in the Project area found a total of 501 elderberry shrubs within 165 feet of the Project footprint. (MND, p. 39.) However, the MND reports that only some (i.e. 43- 51 shrubs that would be permanently removed and 56 that would be trimmed) of the 501 elderberry shrubs that would be impacted by the project. (MND, p. 39.) The MND does not provide an explanation for why all 501 elderberry shrubs would not be impacted. The MND should have included an analysis about why elderberry shrubs that could be impacted (i.e. are located within 165 feet of the project or where paving will occur within 20 feet of a shrub) would not be affected by the Project.

The MND also likely underestimates the impacts to VELB for Segments 1 and 2 of the proposed Project. Because there is currently no funding for these segments and because a preferred alignment has not yet been selected, there would likely be a number of years before these segments can be constructed. Elderberry shrubs are likely to grow and increase in number during this time. Therefore, it is inappropriate to estimate VELB impacts for Segments 1 and 2 at this time.

The MND indicates that mitigation for impacts to VELB would be accomplished by purchasing credits from an unspecified mitigation bank. (MND, p. 43.) Yet the FWS Framework emphasizes the importance of keeping mitigation close to the site of impact. (Exhibit E, FWS Framework, p. 12.) The Framework also recommends making purchases at a 3:1 ratio for disturbed riparian habitat. (Exhibit E, FWS Framework, p. 14.) The MND, in comparison, specifically calls for off-site credit purchases, and only at a 1:1 ratio despite that riparian habitat would be permanently impacted. (MND, p. 46.)

In addition, it appears that the City proposes to transplant the 56 elderberry shrubs that would be trimmed. The MND states that the City will relocate elderberry shrubs as close as possible to their original location but only if, “1) the planting location is suitable for elderberry growth and reproduction; and 2) the City is able to protect the shrub and ensure that the shrub becomes reestablished.” (MND, p. 49.) In fact, many places in the roughly one mile extending east from the I-80 bridge where plantings and relocations could be critical in closing gaps in elderberry extent and VELB habitat connectivity. The MND does not provide any assessment of whether these criteria may be met by selecting sites in close proximity to the impacted habitat. VELB is patchily distributed within riparian habitat and thus mitigation must be implemented to prevent habitat fragmentation that adversely affects VELB breeding, foraging and dispersal. (Exhibit E, FWS Framework, p. 8-9.) Given the large number of shrubs the Project would impact, and the uncertainty about where shrubs would be transplanted and where mitigation would take place, it is not clear whether impacts to VELB would be mitigated to a less than significant level.

Mitigation Measure 3-6 proposes to compensate for the permanent removal of riparian vegetation by purchasing off-site credits at a mitigation bank or replanting riparian trees and shrubs at a 1:1 ratio. Although this may be consistent with the City's General Plan policies, this ratio of compensation is below recommendations for mitigating for impacts to riparian habitat. (See Exhibit E, FWS Framework, p. 14.) The MND should include mitigation measures consistent with VELB-specific recommendations by other government agencies.

3. *Significant Impacts to Protected Trees*

Construction of the proposed trail would result in the removal of numerous trees. (MND, p. 35.) The Project would also adversely affect trees by requiring tree trimming for equipment access and conducting ground-disturbing activities within the dripline of protected trees. (*Ibid.*) The MND admits that the impacts to protected trees would be significant. (MND, p. 38.) However, the existing mitigation measures are inadequate and have significant blind spots that limit their effectiveness. Given the potentially significant impacts, the City Arborist should be involved throughout the construction process, or a consulting arborist should be on the Project team.

The number of trees removed and trimmed within Segments 1-2 is not disclosed in the MND. These Segments would be constructed in the future; therefore, the current size of trees and portions of trees overhanging the project footprint may differ from current conditions. This problem also relates back to the connectivity issue for bike trails: if Segments 1-2 have no construction plan, then this really is a "trail to nowhere" and does not provide connectivity.

The trees within Segments 1-2 are within riparian habitat and co-occur with elderberry shrubs. Segments 3-6 of the proposed Project would permanently affect (remove) 22 trees and temporarily affect (trim) approximately 72 additional trees located within the project footprint. (MND, p. 38.) Each tree proposed for removal should be inventoried by a consulting arborist.

All trees identified for removal are located within the valley foothill riparian vegetation community. (MND, p. 38.) The MND states that of the trees to be removed, four trees are protected under the City's Heritage Tree Ordinance, citing City of

Sacramento Municipal Code 12.64.020. (MND, p. 38.) In fact, this Ordinance has been repealed and replaced so this entire analysis in the MND is based on superseded law.⁷

Current Sacramento City Code section 12.56.040 requires modification “of public projects to avoid the removal or damage to city trees.” The MND makes no attempt to explain how the Project complies with this code section, as it relies on the prior version of the City Tree Ordinance. The Project design and alignment does not reflect any consideration for avoiding the removal or damage to City trees.

The City’s heritage tree ordinance protects trees of any species with a circumference of 100 inches or more; California native oak, buckeye, and sycamore trees with a circumference of 36 inches or greater; and/or trees of any species with a circumference of 36 inches or greater in a riparian zone. (See Exhibit F, Tree Permits & Ordinances Webpage.)⁸ The Project area includes trees that are covered by the new ordinance, including two black locust trees (with DBHs of 50 inches and 45 inches), one cork oak (DBH of 40 inches), and one Fremont cottonwood (DBH of 50 inches). (MND, p. 38.) The MND fails to analyze protected tree removal under the ordinance that applies to the Project and must be corrected.

During operations and maintenance, dead, dying, and hazard trees may be trimmed or removed. (MND, p. 38.) Dead and dying trees provide critical habitat for birds and other wildlife. Removal of such habitat could pose a potentially significant impact to protected species habitats. Thus, any proposed removal should be done under the stewardship of a wildlife/bird naturalist.

The MND claims that Heritage trees and other trees identified for removal within the Project footprint are owned by the City of Sacramento. (MND, p. 38.) This assertion is not necessarily true. The ownership map developed by the Lower American River Conservancy shows this land as being County owned. (See Exhibit G, Boundary and

⁷ Sacramento City Code 12.56 was amended and adopted by Sacramento City Council on August 4, 2016. The new tree ordinance amends section 2.62.030 & 8.04.100, and deletes chapter 12.60 & 12.64 of the Sacramento City Code, related to trees.

⁸ Available at <https://www.cityofsacramento.org/Public-Works/Maintenance-Services/Trees/Permits-Ordinances>. While the Project trees are not City trees, per se, the intent to require modification in order to avoid removal or damage to trees in City projects is implied.

Ownership Map, p. 1.)⁹ This is why an agreement between the City and County is required to build and operate the trail. (See MND, p. 18.) Conflicts over tree removal and County property can only be resolved if the City prepares a full EIR.

4. Mitigation for Potentially Significant Biological Impacts is Inadequate

The following mitigation measures in the MND are inadequate, as described below.

Mitigation Measure 3-1: Conduct Worker Environmental Awareness Training Program Regarding Special-status Species and Sensitive Habitats prior to Construction.

Comment: This mitigation measure should include education on tree survival needs.

Mitigation Measure 3-2: Install Temporary Fencing Around Environmentally Sensitive Habitat Before any ground-disturbing activity occurs within the project footprint, the City shall ensure that temporary construction barrier fencing, silt fencing, and/or flagging is installed between the work area and environmentally sensitive habitat areas (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests to be avoided), as appropriate. Construction/maintenance personnel and construction/maintenance activity shall avoid fenced environmentally sensitive areas. The exact location of the fencing and/or flagging shall be determined by the resident engineer coordinating with a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. No ground disturbance or vegetation removal activity shall be allowed until this condition is satisfied. The fencing/flagging shall be checked regularly and maintained until all work is complete. For construction, any required barrier or sediment fencing and a note reflecting this condition shall be shown on the final construction documents.

Comment: In order to preserve trees during and after construction, fencing location needs to be determined with consultation of a trained arborist. That is not included in this mitigation measure.

Mitigation Measure 3-4: Return Temporarily Disturbed Areas to Pre-Project Conditions All temporarily disturbed areas shall be returned to pre-project conditions within one year following completion of construction/maintenance. These areas shall be properly

⁹ Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=154999>.

protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation.

Comment: In order to preserve trees during and after construction, any activity within the trees' driplines needs to be determined with consultation of a trained arborist. That is not included in this mitigation measure.

Mitigation Measure 3-6: Compensate for Permanent Impacts to Riparian Habitat and Protected Trees In accordance with policies stated in the City's General Plan, to compensate for the permanent removal of riparian vegetation associated with the trail construction, the City shall purchase off-site credits at a mitigation bank or replant riparian trees and shrubs at a 1:1 ratio (e.g., 1 acre planted for every 1 acre removed) ... If an onsite or offsite City-responsible mitigation site is used, the City shall accomplish riparian habitat compensation by implementing the following: after completion of the trail design, the City shall total the number, type, and size of all trees and shrubs to be removed and prepare a planting plan that identifies the location of the riparian mitigation plantings and the number, type, and size of plants ... The City will be responsible for planting, replanting, watering, weeding, invasive exotic eradication, and any other practice needed to ensure this goal ... To ensure success of the mitigation plantings, the City shall prepare and implement an adaptive management plan that identifies specific monitoring tasks, success criteria, and reporting requirements. If mitigation bank credits are purchased, the credits must be purchased at a CDFW-approved site.

Comment: As discussed above, the 1:1 mitigation ration is not adequate to protect VELB in the Project area. Additionally, a 1:1 mitigation ratio does not account for any replacement or replanting failures. Potential off-site mitigation sites are not described in the MND. In order to protect the Parkway, mitigation should occur within the Parkway, not in other regions. Lastly, it is not evident from the MND whether the costs of this mitigation measure – which have been estimated to be over \$1 million – is covered by the Project budget.

Mitigation Measure 3-7: Monitor During Ground Disturbance and Vegetation Removal A qualified biological monitor shall be present during all project activities requiring ground disturbance or vegetation removal within the construction area and shall make weekly monitoring visits to construction/active maintenance areas occurring in or adjacent to environmentally sensitive habitat areas, (i.e., waters of the U.S. and State, riparian vegetation, special-status species habitat, active bird/raptor nests) ...

Comment: As with other mitigation measures, the inclusion of the City arborist or a contracted arborist is critical for any measure that could result in harm to protected trees.

F. The Project would Result in Potentially Significant Cultural Resources Impacts

The MND recognizes that built environmental resources and archeological resources exist in the Project area. (MND, pp. 56-57.) According to the MND:

Levee Unit 118 Part 1 (American River South Levee) is considered significant under National Register of Historic Places Criterion A within the context of flood management and for its association with the SRFCP... Levee Unit 118 Part 1 is also considered to be a historical resource for the purposes of CEQA.

(*Ibid.*) Segment 4 of the trail Project, which is approximately 0.25 miles long, “would be constructed on the water side slope on an artificial bench offset from the top of the levee” and “include a small retaining wall along the inner edge of the trail.” (MND, pp. 9-10.) The MND’s conclusion that the proposed Project “would not alter the character-defining features of the levee” (MND, p. 56) is incorrect at least as to Segment 4, which would alter the character of Levee Unit 118 Part 1. The MND fails to address this potentially significant effect. Moreover, the failure to adequately depict the Project within its cultural setting in readily understandable figures within the MND renders the MND deficient as an informational document.

G. The MND Ignores Past Geotechnical Issues in the Project Area its Geology and Soils Analysis

The MND does not provide any analysis regarding potential erosion at the Project site, and instead makes a blanket assertion that City Standard Construction Specifications will be sufficient to avoid significant impacts. (MND, p. 67.) This lack of analysis ignores potentially significant impacts that can occur despite following relevant codes and standards.

Recent experience provides showcases this shortsighted approach. Phase I of the Two Rivers Trail project encountered geotechnical issues, which led to change orders costing over three hundred thousand dollars. According to a January 9, 2007 City of Sacramento staff report to City Council regarding Phase I construction costs:

The Geotechnical Engineers report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or American River Flood Control District's new specifications for levee fill material.

(Exhibit H, Two Rivers Trail Phase I Staff Report, January 9, 2007, p. 2.)

The MND states that:

Because the design, construction, and maintenance of levee improvements must comply with the regulatory standards of USACE and CVFPB, it is assumed that the design and construction of all levee modifications to accommodate placement of the trail would meet or exceed applicable design standards for static and dynamic stability, seismic ground shaking, liquefaction, subsidence, and seepage.

(MND, p. 67.) Given the City's experience with Phase I, geotechnical evaluations should be completed as part of the overall environmental analysis in order to evaluate the cost and feasibility of meeting these standards and to adequately evaluate impacts. Mitigation Measure 6-1 impermissibly defers mitigation by delaying the preparation of a final geotechnical investigation of the Project, until after Project approval.

H. The Project would Result in Potentially Significant Hazards Impacts

1. *The MND's Hazards Environmental Setting Omits Crucial Details Necessary to Understand the Project's Potential Impacts*

The environmental setting under the MND hazards section is lacking in critical information. (MND, p. 69.) While the MND notes that the Project area for trail segments 1 and 2 were historically used for waste disposal, no further detail is given. (*Ibid.*) Instead, the MND refers readers to the Phase I Environmental Site Assessment for "additional details." (*Ibid.*) A description of this potential impact must be included in the MND. The hazards section environmental setting also does not provide any relevant information regarding the alternative routes in Segments 1 and 2. The biological resource section differentiated between elderberry bush impacts based on trail alignment (see MND, p. 39); if such differences exist between the two trail alignments with respect to potential hazard impacts, that should be disclosed in the MND. Given that Mitigation Measure 7-1 only applies if the preferred alternative is selected, it appears that there are

some differences based on potential trail alignment. (See MND, p. 71.) More information is therefore needed regarding hazards in the segments 1 and 2 Project area.

I. Hydrology and Water Quality Impacts are Potentially Significant

1. *The MND Fails to Provide an Accurate Description of Baseline Hydrological Conditions*

According to local residents familiar with the Project area, the path at the toe of the levee can become submerged when the river is high, sometimes for multiple weeks in recent years. (See, e.g., Exhibit A, Testimony on Aesthetics, p. 10.) The MND does not disclose or analyze this possibility, despite the fact the Project trail would be paved right through flood-prone segments of the south bank. This flood-risk also comes with several potential impacts, including increased trail maintenance to clear mud and debris, increased repairs, which increases air pollution. The MND does not contemplate such a possibility, let alone analyze the resulting impacts.

2. *The Trail Alignment Would Pose a Potentially Significant Flood Risk*

The MND hydrology and water quality section takes a truncated view of the Project's potential impacts, omitting discussion of entire potentially significant impacts. The MND only acknowledges potential runoff of contaminants during construction activities, caused by erosion and storm water runoff. (MND, p. 74.) However, the MND ignores how the Project's trail alignment would expose the Project, nearby residents, and visitors to potentially significant flood risk.

The Project trail alignment was developed both after the Parkway Plan and the Two Rivers Trail Concept Plan ("Concept Plan"). (See MND, p. 5.) As the MND acknowledges, the mid-levee "bench" alignment would pose a risk to levee performance. (MND, p. 5.) Despite this concern, the Project opts for a mid-levee alignment for Segment 4 of the trail. (MND, pp. 9-10.) The MND does not reconcile the potential to impact levee integrity or maintenance with the decision to use the mid-levee alignment. The MND itself contains evidence of a fair argument of a potentially significant flood impact.

Moreover, the Lower American River Task Force ("Task Force") has identified four segments of the American River's south bank, all in the Project area, as "immediate threat[s] of failure[.]" (See Exhibit I, Lower American River Task Force, Bank

Protection Working Group, March 13, 2018 Update [“Task Force Presentation”], pp. 9, 11.) The MND fails to analysis these existing conditions and the Project’s effect on them. Some grading activity will occur in segments 5 and 6, which directly overlap the segments the Task Force identified. (See MND, p. 10.)

3. *The MND Fails to Consider the Potential Water Quality Impact of Increased Fecal Coliform*

The Project would increase visitors to the American River Parkway (see, e.g., MND, p. 90), but does not include additional restroom facilities, nor additional trash receptacles. This increase in visitors can be expected to result in an increase in human and dog feces in the area along the trail. Yet, the MND considers only those impacts related to construction and fails to consider any impacts related to increased contamination from feces from humans or dogs. (See MND, p. 74.)

As the new trail would be on the river-side of the levee, any rain event would mobilize fecal contamination into the river. Dog waste is a significant cause of storm water pollution, and particularly, elevated levels of fecal coliform bacteria. (See Exhibit J, *Microbes and Urban Watersheds: Concentrations, Sources, & Pathways*, pp. 69-70.) While the Water Quality Control Plan for the Sacramento River and San Joaquin River basins limits fecal coliform levels to not exceeding 200 colonies per 100 mL for the geometric mean of five samples taken over a 30 day period, storm water runoff in urban areas can have levels of 15,000 or even 22,000 colonies per 100 mL. (*Id.* at 70.) Just one gram of dog feces is estimated to contain 23 million fecal coliform bacteria. (*Id.* at 74.) During storms or floods, contaminated water would drain directly into the American River without any treatment.

The Project does not include additional drainage facilities to address water quality impacts from, increased fecal coliform. Similar to the case of *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1197 (city required to analyze potential environmental impacts from increased visitors with dogs), this Project would also result in significant water quality effects.

There is substantial evidence supporting a fair argument that the Project would cause significant water quality impacts by contaminating the American River, and therefore an EIR is required. Further, additional mitigation, such as proper signage and additional design modifications could alleviate this potential impact.

J. Project Noise Impacts are Potentially Significant

The MND fails to acknowledge how the Project would potentially increase noise levels claiming there would be no noise impacts. (MND, p. 103.) The MND overlooks several potential sources of noise that would result from the Project including: new trail users playing music with portable speakers; the potential for 24-hour use of the trail leading to unacceptable levels of nighttime noise; and that more pedestrians may use the top of the levee to avoid conflicts with bicyclists on the paved trail, creating new sources of noise closer to residents. However, because the MND fails to consider these potential impacts, it is impossible for the public to understand the extent of the Project's potential noise impacts.

K. Project Impacts on Public Services are Potentially Significant

1. *The MND Fails to Accurately Describe Baseline Illegal Camping Activity in the Vicinity of the Project Area*

The MND makes no mention of illegal camping activity that occurs in the vicinity of the Project area. The area immediately adjacent to the Project area has a perineal homeless population, particularly near Sutter's Landing Regional Park and along the American River south bank. (See Exhibit K, Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count, p. 48 ("Point-in-Time Count").) The 2017 Point-in-Time Results likely underestimate the number of unsheltered people living along the American River Parkway, because much of the area was flooded at the time the count was done. (Exhibit K, Point-in-Time Count, pp. 25-26.) In the absence of the flooding, the number of people along the bikeway would likely have been substantially higher.

These locations along the American River Parkway are all accessed by the paved bike trail that connects directly to the services and concentrations of unsheltered people in the north downtown area. The bike trail provides an off-street, paved surface, that allows for the transport of shopping carts and other carts, and bikes heavy with baggage. Crucially, these locations along the parkway are all within 2.5 miles—by paved, off-street bike trail—of the north downtown concentration center, and all provide access to the privacy of densely wooded areas. The Two Rivers Trail is intended to eventually connect the densely wooded riparian areas of the Project area to the north downtown area with 2.5 miles of paved, off-street bike trail.

The MND however, fails to consider the potential increases in illegal camping in the Project area, or the resulting impacts that may result from such an increase. This

includes potential fire risks, water quality degradation from storm runoff, and increased public services demands in the area. A full accounting of the unsheltered population in the Project area is necessary to fully evaluate the Project's environmental impacts.

2. *The MND Fails to Consider Increases in Required Public Services Due to Increased Visitors and Exposure of Illegal Camping*

According to the MND, “[t]here is no evidence to indicate that a paved path would lead to increased crime, fires, or noise relative to the current condition.” (MND, p. 82.) This assertion is made without supporting analysis.

With increased visitors to the Project area, and potential increases in illegal camping activity, the Project would potentially require dramatically more public service resources than current conditions. With increased visitors, cyclists, and potentially unsheltered population, the Project would increase the need for fire services, police services, trash pickup and other maintenance services.

As to fire services, the MND fails to recognize the following:

- 1) that fires within the American River Parkway corridor occur primarily where there is a paved trail and, therefore, that development of a paved trail will increase the incidence of fires within the project area through the ignition by cigarette butts and camp fires;
- 2) that the trail is closely bordered by dense grasses and shrubs that are very dry through much of the year and could easily carry fire;
- 3) that the trail is closely bordered and overhung by trees, many greater than 60 feet tall, that could carry fire above the top of the levee and drop flaming brands over the levee;
- 4) that, unlike other areas along the parkway within the City of Sacramento where fires have occurred—such as directly across the river from the project area, where the bike trail is paved—this section of the Parkway is directly adjacent to residences; and
- 5) that an increase in fire incidence along the parkway would mean an increase in fire risk to the adjacent neighborhood, as an ignition in the grass

could move to the tree canopy on the river-side, which would send flaming debris over the top of the levee onto yards and houses.

These factors all support a fair argument that the Project would require increased levels of fire services.

Moreover, the MND fails to recognize that the fire department is limited in its ability to access the areas where fires are most likely to occur as a result of this Project, the area at the toe of the levee and in the wooded riparian area along the river. The fire department would presumably need to drive to one of the access points at Glenn Hall Park or Sutter's Landing Park, and would need to open the access gate, all of which would require time. The fire department would be largely limited to the road at the levee crown, and not to the toe road or the area beyond the toe road, which is steep and wooded in many areas and, at Paradise Beach, is too sandy for fire trucks to drive on. This area is particularly problematic for fire department access. In November of this year, firefighters were limited in their ability to fight a fire near Paradise beach because of access limitations. Yet the MND does not include any recognition of this potentially significant impact or any mitigation measures to increase fire service access to the Project area.

Logically, fire ignitions from cigarettes and vandalism are most likely to occur along paved trails where there is greatest visitation and usage. Ignitions from illegal fires are most likely to occur near a paved trail, where the vegetation provides a privacy screen from the trail. Therefore, fires in this location and along the trail can be expected to increase due to increased access and usage due to the Project.

The increased risk of fire from the Project is particularly relevant due to the Project's proximity to residential areas. River Park is a residential neighborhood that borders the project area for approximately two miles from the Capital City Freeway bridge to the H Street. This is one of only two places in the City of Sacramento where the Parkway is directly adjacent to a residential area. In other portions of the Parkway within the City, there is a large thoroughfare as well as a canal, or a golf course, or a large commercial property, standing between the river parkway and any residential buildings. In many places, houses in River Park are only 80 feet from the branches of trees in the wooded area along the river. Trees in backyards can be even closer. This is especially true of the houses along Segments 4 and 5A. The MND fails to acknowledge the uniqueness of River Park's situation, and the potential consequences for the neighborhood should the Project lead to increased fire ignitions.

Similarly, the MND fails to recognize the potential need for increased police services in the area. The MND states that “[t]here is no evidence to indicate that a paved path would lead to increased crime, fires, or noise relative to the current condition.” (MND, p. 82.) However, the MND does not support this assertion with any analysis, despite the logical conclusion of increased visitors leading to increase crime, fires, and noise relevant to current conditions.

The MND fails to acknowledge that a substantial increase in use and traffic would result in a commensurate increase in incidents requiring emergency services or police attention for incidents including bicycle collisions and accidents, graffiti and vandalism, medical emergencies, and altercations. Also, once the bike trail is paved, it would be considered a transportation corridor and 24-hour access would be allowed. At the River Park neighborhood association spring meeting, the City discussed the possibility of funding additional rangers for the Project area. This tacit admission that the Project area will require more police services is inconsistent with the MND’s conclusions.

The same arguments apply equally to emergency services. The current path along the levee toe is heavily used by families walking, often with small children and dogs. (See Exhibit A, Testimony on Aesthetics, pp. 1-7; see also Exhibit C, Baseline Parkway Use.) The Project would increase the number of bikers on the trail, at the same time allowing those bicycles to travel at much higher speeds. This would inevitably result in an increase in conflicts and collisions between pedestrians and the bike through-traffic within the narrow space at the toe of the levee. The resulting collisions and conflicts would increase the need for emergency and police services.

Last, the MND fails to acknowledge that an increased use and traffic due to the project would result in a commensurate increase in the amount of trash generated at Glenn Hall Park. As more people use Glenn Hall Park as an access point for the Parkway, the dumpster at the base of the levee on the river side by Glenn Hall Park would be used more frequently. The trash receptacles in these areas already overflow routinely throughout the summer and on busy weekends. The Project would also result in a substantial increase in litter and trash along the trail from the H Street Bridge to Sutter’s Landing as a result of the increase in traffic and use. This would require more public services to empty the existing and additional trash receptacles and to remove trash littered along the trail. Yet the MND fails to recognize the need for additional services to empty trash receptacles and remove litter along the trail.

Also, the increase in use and traffic at Glenn Hall Park due to the Project would result in a commensurate increase in the use of the toilet facilities at Glenn Hall Park,

which will require more cleaning and repairs. Currently, these toilet facilities routinely experience clogs, run low on toilet paper, and can become very dirty. The MND fails to recognize the need for additional services to clean and repair the toilet facilities.

As discussed above, the path at the toe of the levee can become submerged when the river is high, and has been submerged for multiple weeks in recent years. The Project trails would be submerged when the river level reaches the toe of the levee. This would cover portions of the pavement in mud, requiring clean up. The submersion would also potentially wash away portions of the pavement, which in turn would require repairs. The MND fails to recognize the need for additional services to clean and repair the trail following submersion events.

L. The Project May Have Potentially Significant Impacts on Transportation/Traffic

According to the MND, there would be no significant impacts to transportation and traffic from the Project. (MND, p. 87.) Therefore, no mitigation is proposed. The MND is inadequate.

1. *Setting Information Regarding Transportation/Traffic is Incomplete*

The MND fails to include information regarding existing bicycle and pedestrian uses of the trails in the Project area. As demonstrated in both Parkway user surveys, Exhibits B and C, as well as the testimony in Exhibit A, bicycles and pedestrians use the Project area as a transportation route. The existing trail configuration allows and invites pedestrians to experience a quiet, peaceful, natural and riparian environment. Pedestrians currently have adequate access, lines of travel and paths in other locations within and outside of the Parkway. The MND only describes existing formal transportation paths, City streets and paved sidewalks, ignoring the current transportation uses of the Project area. (MND, pp. 87-88.) The MND also fails to acknowledge that Carlson Drive, while an access point, does not currently include a bike lane. (See Exhibit D, Sacramento Bike Plan Excerpts.) Whether the Project, a trail primarily for bicycle use, has access points that accommodate bicycles, is necessary information to evaluate traffic and transportation impacts.

2. Significant Transportation/Traffic Impacts

The MND incorrectly concludes the Project would not have potentially significant impact to pedestrian travel and use of the Project. (MND, p. 90.) As with recreational impacts, the MND fails to consider how the Project's planned uses, increased bicycle commuting, is incompatible with existing pedestrian use. Without any reasoning or analysis, the MND asserts that the Project design, primarily the gravel shoulders, would "minimize the conflict between bicycles and pedestrians." (MND, p. 90.)

The access, lines of travel and paths are not traditional in terms of paved sidewalks and asphalt, nor do they meet the requirements of a Class I bike path. However, the Project area is a haven for pedestrians seeking a more natural walking experience. (See Survey, Exhibits B and C; see also Exhibit A, Testimony on Aesthetics, pp. 1-7.) Given the Project objective to provide alternative transportation access for commuters and residents in the eastern part of the City, CSUS, Central City, North Sacramento, East Sacramento, and Richards Boulevard area, the MND inadequately analyzes the potential conflicts between the introduction of numerous commuters on bikes to the existing pedestrian environment. (See especially Exhibit C, crossing estimates.)

The City and County of Sacramento have had to historically address conflicts between pedestrians and cyclists on other segments of bikeways and parkways. The MND, in not reviewing historic information, and successful or failed attempts to manage the conflicts between these two users, is incomplete. The evidence of existing uses and potential conflicts with new users supports a fair argument that the Project would have a potentially significant impact on pedestrian travel in the Project area.

The MND also fails to recognize a potentially significant impact to bicycle travel. As discussed above, Carlson Drive, one of five Project access points, does not currently have a bike lane. (Exhibit D, Sacramento Bike Plan Excerpt.) The Project would presumably increase bike traffic on Carlson Drive, as commuters would use it as an access point to the new paved trail. However the MND does not analyze the impacts of increased bicycle traffic on Carlson Drive, nor does it include mitigation such as constructing a bike lane. (MND, p. 90.) Increased bike traffic, without a bike lane, could potentially impede use of Carlson as an access point and cause public safety issues.

M. The MND Fails to Address the Project's Cumulative Impacts

CEQA requires analysis of "[t]he cumulative impact from several projects" which "can result from individually minor but collectively significant projects taking place over

a period of time.” (CEQA Guidelines, §§ 15355, 15130.) “Proper cumulative impact analysis is vital ‘because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.’ [Citations.]” (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1214.)

Despite this mandate, the MND includes no discussion of the interaction between the proposed Project and other past, present, and probable future projects *producing related or cumulative impacts*. It does not appear that the City considered potentially cumulative impacts for any individual resource impacted by the Project. An agency must “determine[] whether the incremental impacts of the project are cumulatively considerable by evaluating them against the backdrop of the environmental effects of other projects. The question is . . . whether the effects of the individual project are considerable.” (*San Joaquin Raptor I, supra*, 42 Cal.App.4th at 624 [internal quotations and emphasis omitted].) While the City did not need to “conduct some sort of grand statistical analysis of the combined purported environmental impacts, if any, of all other” projects in the surrounding area, it should have included some analysis into whether this Project’s incremental effects could be considerable in light of other projects. (*Id.* at 624-625.) Instead the MND only included two paragraphs that are meant to address every impacted resource. (MND, p. 102.) Analysis tailored to specific resources is required by CEQA. (*Ibid.*)

IV. Conclusion

The MND fails to meet the most basic standards for adequacy under CEQA, and an EIR must be prepared for this Project. In addition, alternatives and mitigation measures are available that would avoid and/or lessen the potentially significant impacts of the Project have not been, but must be, considered. As a result, Save Don’t Pave respectfully requests that the City fully comply with CEQA by preparing an EIR before taking any action on this Project.

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
November 30, 2018
Page 32 of 33

Thank you for the opportunity to provide comments on the MND and the Project. Please feel free to contact this office regarding any questions about these comments and potential means to address the concerns stated herein.

Very truly yours,

SOLURI MESERVE
A Law Corporation

By: 
Osha R. Meserve

ORM/mre

cc (via email): Save Don't Pave

Attachments:

- Exhibit A Parkway User Testimony and Photographs Regarding Aesthetic Impacts
- Exhibit B Survey of American River Parkway Trail Users (June-Oct. 2018)
- Exhibit C Baseline Recreational Use Data (May-August 2018)
- Exhibit D Sacramento Bicycle Master Plan Excerpts
- Exhibit E United States Fish & Wildlife Service, Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (May 2017)
- Exhibit F City of Sacramento, Permits & Ordinances, When is a Tree Permit Needed?
- Exhibit G American River Parkway, County Parcels and Inholdings, Boundary and Ownership Map (November 13, 2017)
- Exhibit H Two Rivers Trail Phase I Staff Report to City Council (January 9, 2007)
- Exhibit I Lower American River Task Force, Bank Protection Working Group, Update Presentation (March 13, 2018)
- Exhibit J Microbes and Urban Watersheds: Concentrations, Sources, & Pathways (March 22, 2016)
- Exhibit K Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count (Excerpt)

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
November 30, 2018
Page 33 of 33

Exhibit L Two Rivers Trail Phase II: Inconsistencies with the American River
Parkway Plan

Biological References:

California Natural Diversity Database (CNDDB) 2018. Natural Heritage Division,
California Department of Fish and Wildlife, Sacramento, CA.

Talley, T.S., E. Fleishman, M. Holyoak, D. Murphy, and A. Ballard. 2007. Rethinking a
rare-species conservation strategy in an urbanizing landscape: The case of the valley
elderberry longhorn beetle. *Biological Conservation* 135:21-32

U.S. Fish and Wildlife Service. 1894. Valley Elderberry Longhorn Beetle Recovery
Plan. U.S. Fish and Wildlife Service, Endangered Species Division, Portland, Oregon. 62
pp.

U.S. Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley
Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and
Wildlife Service, Sacramento, California. 28 pp. May 2017.

EXHIBIT A

Aesthetic Impacts of Two Rivers Trail, Phase 2

Brian Nowicki Comments

These comments are offered with specific respect to the aesthetic impacts of the Two Rivers Trail and do not encompass all of my concerns regarding the impacts to biological resources and wildlife habitat, nor regarding the costs of the project and the process by which it was developed.

I use the path at the foot of the levee several times a week. It is an ideal place to enjoy and explore nature in a safe and quiet environment. It is a dirt and gravel path, narrow and winding in some places, overhung with branches, shady and quiet. With dense woods close on one side, and with the levee blocking the view to the adjacent neighborhood on the other side, it is a place where people can get away from the noise and rush of the surrounding city, to experience the sights and sounds of nature, and to let dogs walk and children explore and play. It is a wonderful place to experience the habitat of the rare and threatened species in Sacramento's backyard, the valley elderberry longhorn beetle.

At least twice a week, I run the entire length of the path, from the H Street bridge to its western end near the I-80 bridge. I use the path at the foot of the levee because it lets me run on a soft, level surface in a quiet, natural setting, close to trees. Every weekend, my family and I walk along the path at the foot of the levee, stopping often to look closely at the flowers and trees that reach into the path. We look for valley elderberry longhorn beetles among the elderberry plants, we watch pipevine swallowtail butterflies, and we birdwatch for quail and other birds that frequent the path. We catch falling leaves from the trees in the fall and jump in puddles in the path in the winter, and we stop and visit with fellow walkers and their four-legged companions.

This project as planned would drastically change the nature of this trail and degrade what my family and I treasure about this special area. Throughout much of the area at the west end of River Park the paved trail and shoulder would take up the entirety of the terrace at the foot of the levee, requiring the removal of all trees and other vegetation between the levee and the steep slope down to the river, cutting significant swaths of elderberry shrubs and leaving a much more urban and sterile environment, with less shade and wildlife. There are few places along the parkway that are so narrow and that will be so fundamentally changed as the section at the west end of River Park.

Instead of taking a leisurely walk along a quiet path thick with wildlife, pedestrians will largely be relegated to the gravel shoulder as bikes speed by on the paved trail, like everywhere else along the American River bikeway. And instead of following a butterfly as it crosses the path, or stopping to jump in a puddle or to look at tracks in the mud, children will have to keep to the shoulder to avoid bicycle traffic. This has been our experience everywhere else the trail is paved.

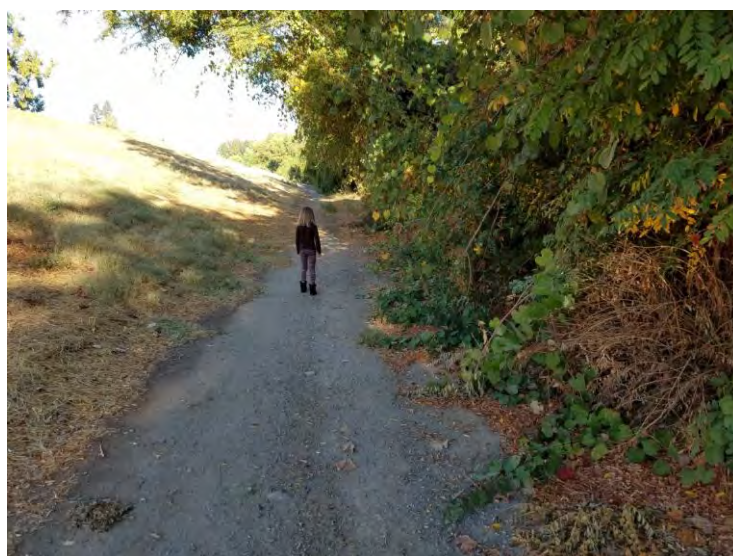
This is a special area that offers an opportunity to enjoy a quiet walk in nature, up close with some of Sacramento's endangered wildlife. This experience, habitat, and endangered species should not be so lightly given up when there is already a twenty-foot-wide road at the top of the levee, just thirty feet away, or without considering alternatives for avoiding these impacts.

The following two photos provide a comparison of the paved section of the trail at Sutter's Landing and the current path approximately half a mile east of the I-80 bridge.

Brian Nowicki

River Park, Sacramento, CA

November 29, 2018



Regarding aesthetics

To Mr. Buford:

I am writing to let the City Council know of the very special character of the levee toe trail in River Park. As a thirty-plus year resident of this neighborhood I have been blessed to have access to one of the most special environments in Sacramento.

Walking on the levee toe trail is an invigorating and enjoyable experience, no matter what the season.

In the winter, the quiet path is inviting. The sound of water fowl provides the sound track. The air is clear and bracing. The bare trees' branches trace patterns in the cloud-grey skies. Just walking over the levee takes me to another world – of natural beauty and harmony. The winter rains may fill the river bed so much that it nips close to the trail. I am invited to dawdle, to pause, to inspect a plant, to gaze at a crow in a tree, to watch a hawk soar overhead. I don't worry about where I am in relation to a speeding bicycle. I don't worry about anything, really. The experience is calming and I recommend you try it!

In spring, the grasses green up, the trees sprout leaves, and the birds and insects begin their symphony of many tunes. Wildflowers – poppies, etc. – spring up and cloak the levee. Once again, the path invites a slow and mindful experience.

In the summer, it's best to walk in the early morning or later in the afternoon. The shade trees provide respite right over the trail in many places. It would be terrible to lose any of them. This is when you will see wildlife: hares, coyotes, skunks, and ground squirrels. Of course, in the inlets of the river, crayfish, tadpoles, etc., teem. And the rattlesnake; one must watch for him or her.

In autumn, the trees go gold, as does the grass. The mammals may get bolder as they search for food. The air again grows crisp, the invitation remains open to walk slowly and experience the joy of a natural environment near enough to be accessible to any resident of this City.

The walking experience on this trail is like no other experience I've had in Sacramento. It is quiet, friendly, communal, and yet solitary. To pave it is to lose this experience forever. There will be no going back.

Thanks for reading this and please Save Don't Pave.

Kate Riley

5601 Monalee Avenue

Sacramento, CA

95819

Paving the lower trail will affect both the immediate viewshed and the natural experience that affords but also the more distant viewshed which would be more naked and hardened by the paved trail. Views from both the toe and top of the levee would be negatively affected by the project.

Large trees along the existing trail afford shade, soften the view, and create a richer visual experience which would be negatively affected by the project. Replacing large trees in the immediate area (are replacement tree plantings being proposed right along the trail?) Would be extremely challenging unless they are given consistent maintenance. The values (visual, scenic, habitat) that these large trees currently provide would not be attained by replacement trees for many years if not decades.

Other existing vegetation that grows densely along the trail softens and enhances the visual and natural experience and provides cover for wildlife. The existing vegetation would be difficult if not impossible to recreate. Its density helps to suppress weeds such as Star thistle which could get a foothold as a result of the extensive ground disturbance. Star thistle requires constant vigilance and is a visual and ecological blight that overwhelms native grasses and other vegetation.

Nancy Mackenzie

Nancy Mee comments on aesthetic impacts of Two Rivers Trail Phase II project:

Would the project:

a) Have a substantial adverse effect on a scenic vista? Yes, a black asphalt path is far less aesthetically pleasing to the eye than a natural path strewn with leaves and other natural non-garbage debris.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Yes, my understanding is the path construction will eliminate approximately an additional 5-ft width, which will result in the removal of trees, grass, elderberry, naturalized grape vines. Also, the grass along the current unimproved path seems to a ladybug habitat. In early spring, I have seen swarms along the path. How will this be affected by the paving.

c) Substantially degrade the existing visual character or quality of the site and its surroundings? Yes. I have already seen graffiti on the newly paved area between Sutter's Landing and the RR/Bus 80 overcrossing. As a bike commuter on the lower American bike path and dog walker, I've seen the paved path bring transient and homeless usage, human waste, camping, and garbage. This is not prevalent along non-paved areas or outside of Sacramento City limits, where neighboring city councils are willing to take a firm anti-illegal camping position.

Concerns regarding significant impacts to aesthetics due to Two Rivers Trail Project

As I walk along this existing dirt trail, which I do nearly every day, I enjoy views of the river peeking through the surrounding elderberry bushes and the sights and sounds of songbirds feeding on the berries. Paving this trail would require me to walk instead on the gravel top of the levee, peering mostly into other resident's backyards, and watching out for yet more bicycles, since there is and will be nothing to stop bicyclists from using that "trail" as well as the paved bicycle superhighway below.

Paving this trail will substantially damage scenic resources, including not only the endangered elderberries scattered along the trail and the birds and other creatures that feed on them, but also disturbing the entire ecosystem. There are few sights more stunning in our almost exclusively urban environment than walking quietly around a corner of the existing dirt trail to see ahead a family of red foxes just disappearing through the underbrush at the side of the trail. These visual encounters with nature bring daily peace to all who have access to that resource, and will be lost with the widening and paving of that trail.

Cherie O'Boyle

My name is Tony Mader, a current resident of the River Park neighborhood in Sacramento that is immediately adjacent to the Two Rivers Trail project. For the last 10 years, I have used the area that is proposed to be paved to walk (with and without my dogs), run, or other activities associated with being close to nature, approximately 5 times per week on average.

The area proposed to be paved is the last wild (unpaved) portion of the South side of the American River within City limits. I visit it daily as a natural refuge away from the bustle of the City. If it is paved, it will absolutely, permanently degrade the existing visual character and quality of the surroundings. Whereas today I can peacefully walk or run on a gravel path experiencing nature, I know a paved path will degrade the quality of the site for those activities because (1) I have attempted to use the existing paved path on the east side of the neighborhood for those activities and find that it is not peaceful due to the pavement, bikers traveling at high speeds, and very dangerous to walk my dogs due potential collisions with bikers, and (2) the fact that the proposed paving includes destroying trees and bushes that are on the trail that are critical to the visual character and quality of the site as a location to feel like I am close to nature.

-Tony Mader
November 25, 2018





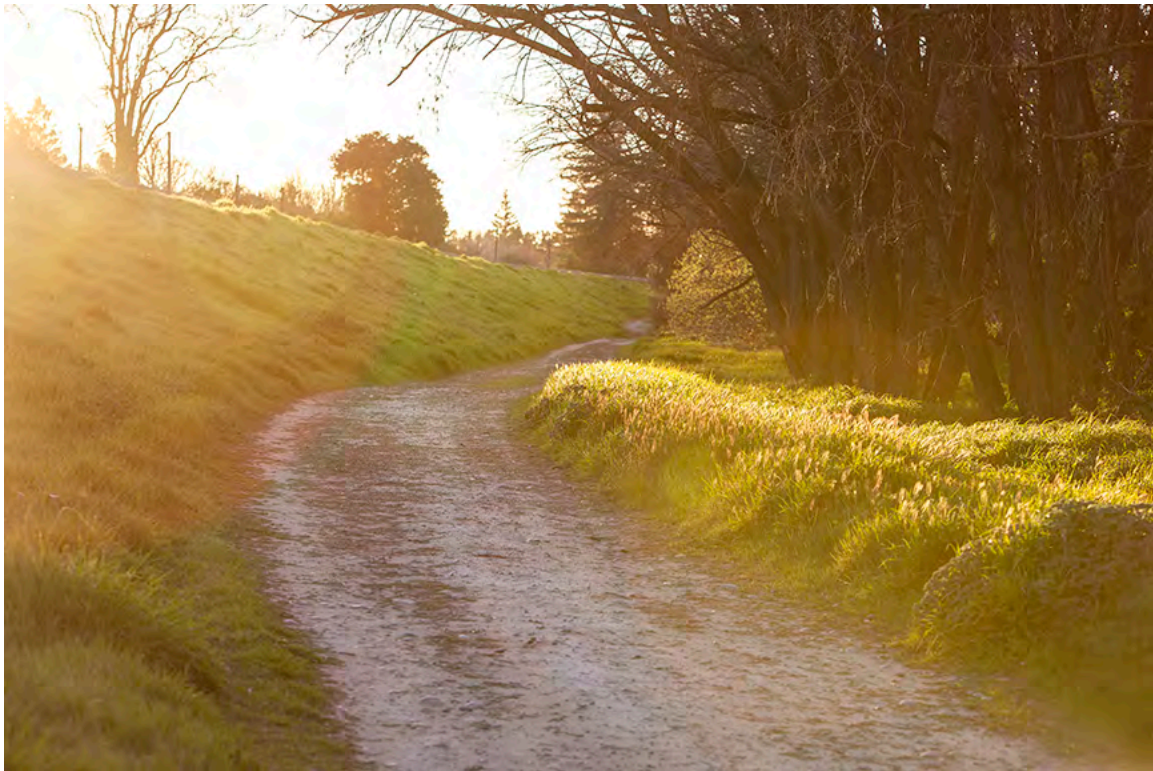
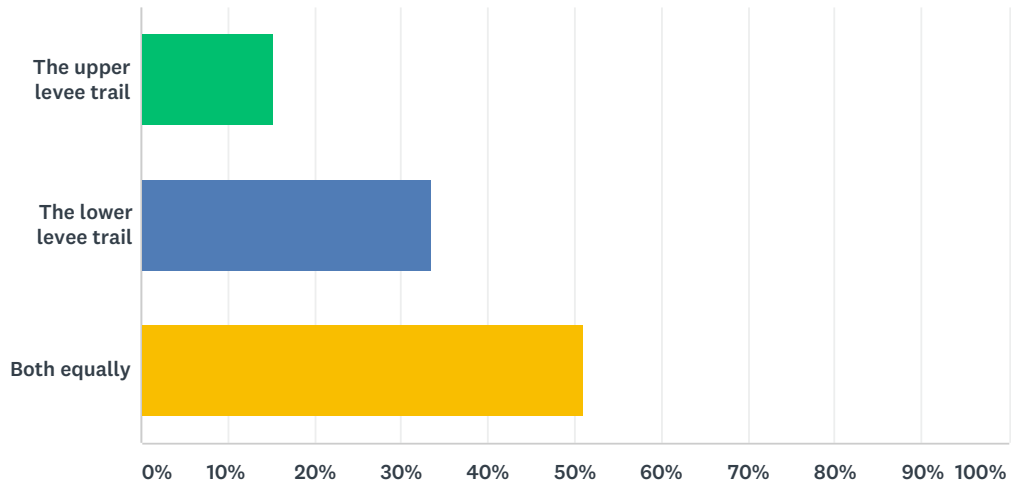


EXHIBIT B

Q1 I primarily use:

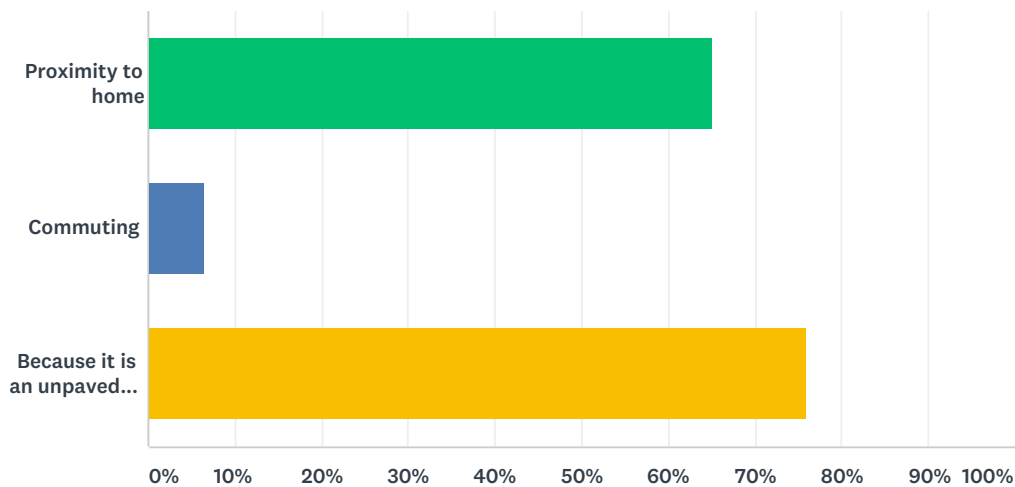
Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES	
The upper levee trail	15.33%	21
The lower levee trail	33.58%	46
Both equally	51.09%	70
Total Respondents: 137		

Q2 Why do you choose to utilize this section of trail? Select all that apply.

Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES
Proximity to home	64.96% 89
Commuting	6.57% 9
Because it is an unpaved section of the parkway	75.91% 104
Total Respondents: 137	

#	OTHER (PLEASE SPECIFY)	DATE
1	I like to be closer to the trees and the natural beauty while on the unpaved trail.	10/27/2018 9:31 AM
2	It is the only place close in the City to be in nature	10/25/2018 4:53 PM
3	MY children and I enjoy being in nature. The nature paveway is a great getaway and what made us move to River Park.	10/15/2018 10:10 AM
4	We use the lower section to walk our dog, to be out in nature, and to avoid cars and bicycles.	10/13/2018 10:21 AM
5	I want to avoid interrupting the privacy of the adjacent homeowners.	10/10/2018 10:20 AM
6	Less other travelers or users to compete with.	10/8/2018 1:47 PM
7	you see more birds and interesting animals and you can also walk close to the river and see the fish jump	10/5/2018 7:34 PM
8	Pleasure walks with dog	10/3/2018 4:10 PM
9	And it is the one section relatively free of homeless encampments so I feel safer here than other places	10/3/2018 12:05 AM
10	In respect of the homeowners' privacy we use the lower section	9/13/2018 9:32 AM
11	Walking my dogs as the dirt better than pavement for their paws	8/16/2018 6:43 PM
12	I walk my dog on a 6 ft leach and there is plenty of room as well as open space on either side.	8/16/2018 6:40 PM
13	Because I love that is still wild and not paved.	8/16/2018 3:23 PM
14	Walking	7/17/2018 9:33 PM
15	It's a nice place to walk without getting stink eye from bikers or the homeless.	7/3/2018 11:22 PM

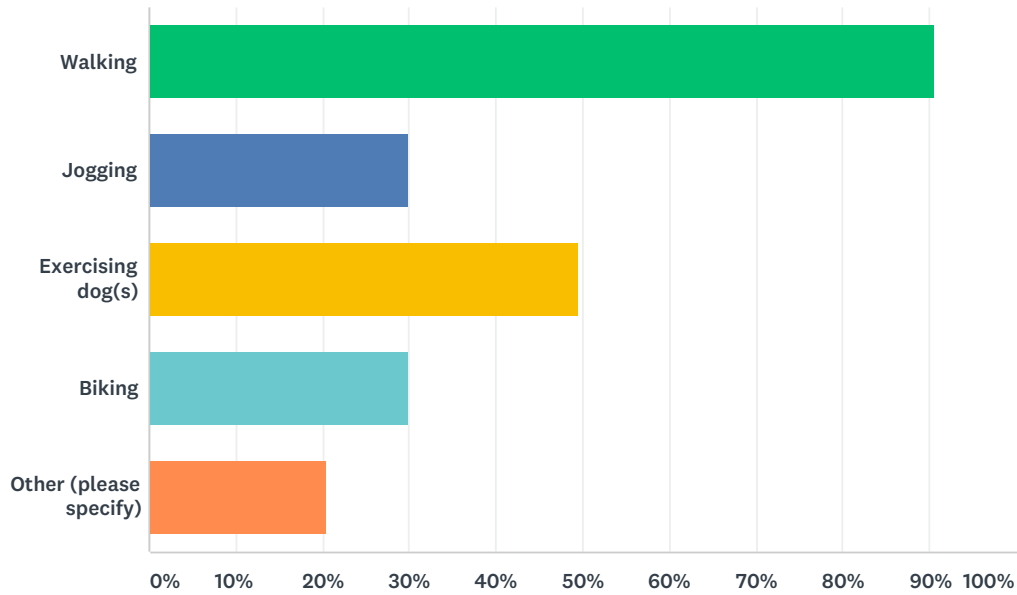
Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

16	And the surface is hard enough for medium and fat tire bikes	7/3/2018 7:41 PM
17	Prefer the lower section because it is shadier	6/21/2018 12:36 PM
18	The only place you don't get run over by bicyclists going 90 MPH	6/21/2018 9:53 AM
19	to walk dog or run	6/18/2018 5:18 PM
20	Because of the natural beauty and the birds	6/17/2018 10:25 PM
21	I go to see the wildlife, the wildflowers, the river, and to exercise.	6/17/2018 8:31 AM
22	I run almost every day and the dirt trail is easier on my legs/feet. Also, I love the tranquility of the dirt trail.	6/16/2018 5:20 PM
23	We use the top during the dark or if it is flooded below.	6/16/2018 8:35 AM
24	Enjoy the natural surroundings and peacefulness	6/15/2018 3:52 PM
25	to see birds and butterflies	6/15/2018 3:01 PM
26	to do cycling and enjoy the scenery	6/15/2018 9:27 AM
27	It offers the most shade and wind protection. If we want to head to the river, its closest.	6/15/2018 6:47 AM
28	Beauty of the surroundings, bird watching	6/15/2018 6:28 AM
29	Close to beautiful river which my dogs swim in	6/14/2018 6:11 PM
30	Quiet and serene	6/14/2018 4:13 PM
31	Use it to walk for health reasons. Walking on pavement or sidewalks cause me severe pain.	6/14/2018 3:11 PM
32	safety	6/14/2018 2:49 PM
33	The dog likes it, I like it for bike riding, jogging and the general ability to amble about.	6/14/2018 2:37 PM
34	Because it's a beautiful natural area. Quiet. Love birding there.	6/14/2018 2:34 PM
35	love the quite, serenity and feeling of nature.	6/14/2018 2:23 PM
36	It's beauty	6/14/2018 2:00 PM
37	If I'm walking alone, I feel safer there.	6/14/2018 1:49 PM
38	Because I enjoy being out near the river.	6/14/2018 1:28 PM
39	Less people and more natural.	6/14/2018 11:00 AM
40	easier to walk on	6/14/2018 10:28 AM
41	The upper level is used more by bicycles and joggers. I prefer a more relaxing stroll on the lower trail without worrying about dodging fast moving folks up above.	6/14/2018 9:54 AM
42	It's a nice ride but the upper trail needs to be paved to allow more connectivity with the rest of the trail	6/13/2018 12:52 PM
43	It is quaint and lightly travelled. Plus, it is shaded and much cooler at the levee toe.	6/10/2018 11:53 AM
44	Love going in my backyard to walk in nature. I feel like I am far away	6/9/2018 2:59 PM

Q3 What activity do you use the trail for? Select all that apply.

Answered: 137 Skipped: 0



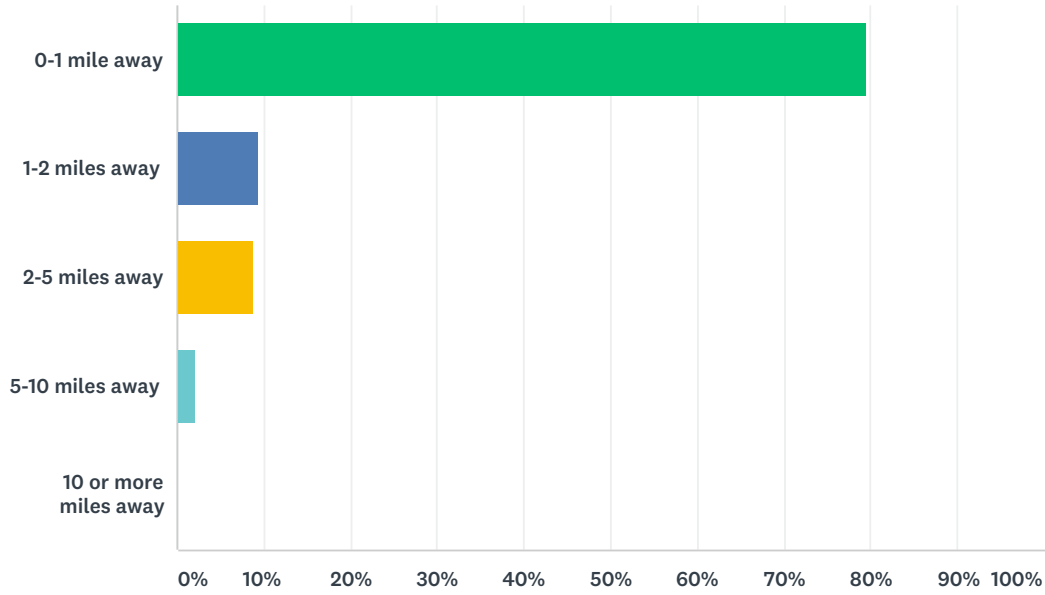
ANSWER CHOICES	RESPONSES	
Walking	90.51%	124
Jogging	29.93%	41
Exercising dog(s)	49.64%	68
Biking	29.93%	41
Other (please specify)	20.44%	28
Total Respondents: 137		

#	OTHER (PLEASE SPECIFY)	DATE
1	Bird watching.	10/27/2018 9:31 AM
2	thinking and reflecting a form of walking meditation	10/25/2018 4:53 PM
3	Wildlife/bird-watching	10/3/2018 12:05 AM
4	communing with nature	8/17/2018 12:51 PM
5	To get away from the hussle and bustle.	8/16/2018 3:23 PM
6	Living	7/4/2018 6:54 PM
7	Enjoying nature and a quiet solitude	7/3/2018 7:41 PM
8	River access	7/3/2018 6:14 PM
9	Looking for wildlife	6/21/2018 9:53 AM
10	Taking the kids to explore	6/20/2018 11:03 PM
11	Exploring nature	6/20/2018 9:48 PM
12	Spiritual refreshment	6/17/2018 10:25 PM
13	Communing with nature.	6/17/2018 8:31 AM

14	Bird watching	6/16/2018 5:20 PM
15	We go out daily. We use the entire trail area -- sandbar to the lower trail and along the lower trail along the river -- we refer to it as the "Secret Trail"	6/16/2018 8:35 AM
16	Escape to nature	6/15/2018 3:52 PM
17	bird and wildlife watching	6/15/2018 3:01 PM
18	Beach access, quiet reflection	6/15/2018 11:56 AM
19	Playing with my kids	6/15/2018 11:20 AM
20	Enjoying the quiet and peace of this section of the unpaved Parkway	6/15/2018 6:47 AM
21	Birdwatching	6/15/2018 6:28 AM
22	watching birds and bugs and flowers. Spending time in nature with my daughter.	6/14/2018 2:58 PM
23	birding	6/14/2018 2:34 PM
24	Paradise beach!!!	6/14/2018 2:23 PM
25	To get to the river	6/14/2018 2:00 PM
26	Walking to the river	6/9/2018 3:09 PM
27	Play in nature and walk the trails	6/9/2018 2:59 PM
28	Horse riding	6/9/2018 2:29 PM

Q4 How many miles do you live from this trail?

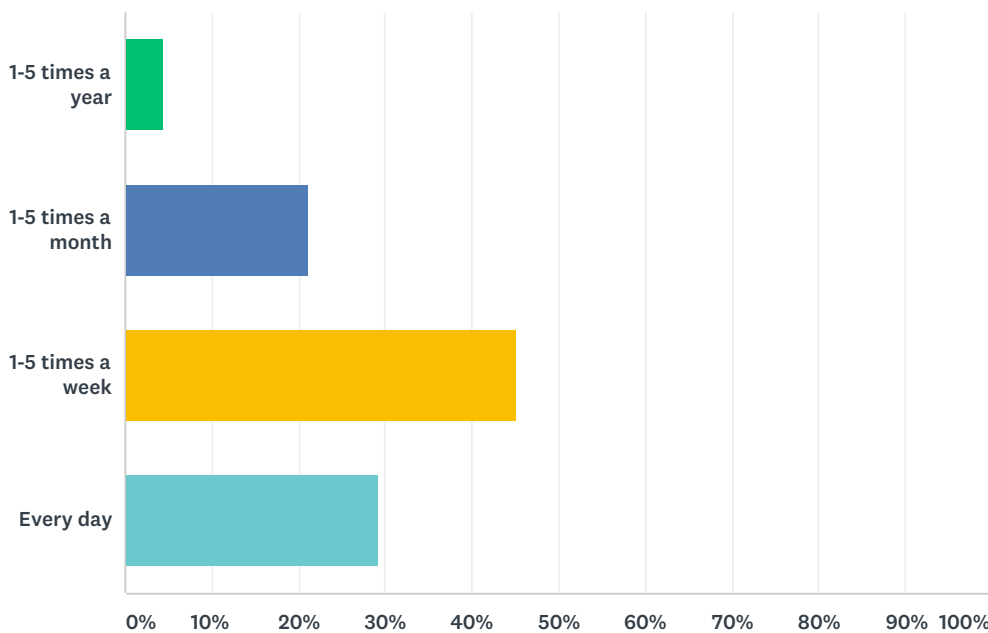
Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES	
0-1 mile away	79.56%	109
1-2 miles away	9.49%	13
2-5 miles away	8.76%	12
5-10 miles away	2.19%	3
10 or more miles away	0.00%	0
Total Respondents: 137		

Q5 How often do you use this trail?

Answered: 137 Skipped: 0



ANSWER CHOICES	RESPONSES
1-5 times a year	4.38% 6
1-5 times a month	21.17% 29
1-5 times a week	45.26% 62
Every day	29.20% 40
Total Respondents: 137	

Q6 What is your zip code?

Answered: 137 Skipped: 0

#	RESPONSES	DATE
1	95819	10/27/2018 9:31 AM
2	95819	10/26/2018 7:15 PM
3	95819	10/25/2018 4:53 PM
4	95819	10/25/2018 2:51 PM
5	95819	10/15/2018 10:10 AM
6	95816	10/13/2018 10:21 AM
7	95819	10/12/2018 10:29 PM
8	95819	10/12/2018 8:35 PM
9	95819	10/12/2018 8:27 PM
10	95819	10/10/2018 10:20 AM
11	95819	10/8/2018 1:47 PM
12	95819	10/5/2018 7:34 PM
13	95819	10/4/2018 11:26 AM
14	95819	10/4/2018 8:27 AM
15	95819	10/3/2018 4:10 PM
16	95819	10/3/2018 10:01 AM
17	95816	10/3/2018 9:47 AM
18	95819	10/3/2018 8:19 AM
19	95819	10/3/2018 6:20 AM
20	95819	10/3/2018 4:55 AM
21	95819	10/3/2018 12:05 AM
22	95819	10/2/2018 2:40 PM
23	95819	9/13/2018 9:32 AM
24	95819	8/21/2018 1:53 PM
25	95817	8/17/2018 12:51 PM
26	95819	8/16/2018 9:14 PM
27	95819	8/16/2018 8:53 PM
28	95819	8/16/2018 6:43 PM
29	95818	8/16/2018 6:40 PM
30	95819	8/16/2018 3:23 PM
31	95819	8/16/2018 3:16 PM
32	95819	8/16/2018 2:59 PM
33	95819	8/16/2018 2:48 PM
34	95819	8/16/2018 1:16 PM
35	95819	8/16/2018 1:02 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

36	95819	8/16/2018 12:57 PM
37	95819	8/16/2018 12:52 PM
38	95819	8/16/2018 12:43 PM
39	95819	8/7/2018 9:55 PM
40	95819	7/23/2018 11:49 AM
41	95819	7/17/2018 9:33 PM
42	95841	7/15/2018 9:57 AM
43	95819	7/4/2018 6:54 PM
44	95820	7/4/2018 1:20 PM
45	95819	7/3/2018 11:22 PM
46	95819	7/3/2018 9:02 PM
47	95819	7/3/2018 7:41 PM
48	95819	7/3/2018 6:14 PM
49	95819	7/3/2018 6:11 PM
50	95819	7/3/2018 6:05 PM
51	95819	7/1/2018 9:52 PM
52	95819	6/24/2018 9:04 AM
53	95819	6/21/2018 2:29 PM
54	95819	6/21/2018 12:36 PM
55	95819	6/21/2018 11:44 AM
56	95819	6/21/2018 9:53 AM
57	95819	6/21/2018 8:59 AM
58	95819	6/21/2018 4:10 AM
59	95819	6/20/2018 11:03 PM
60	95819	6/20/2018 9:49 PM
61	95819	6/20/2018 9:48 PM
62	95819	6/18/2018 5:18 PM
63	95819	6/18/2018 1:35 PM
64	95819	6/18/2018 9:22 AM
65	95819	6/17/2018 10:25 PM
66	95819	6/17/2018 7:29 PM
67	95819	6/17/2018 8:31 AM
68	95819	6/16/2018 7:02 PM
69	95819	6/16/2018 5:20 PM
70	95819	6/16/2018 11:33 AM
71	95819	6/16/2018 8:35 AM
72	95819	6/16/2018 8:14 AM
73	95819	6/15/2018 11:07 PM
74	95819	6/15/2018 8:56 PM
75	95819	6/15/2018 6:33 PM
76	95819	6/15/2018 3:52 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

77	95819	6/15/2018 3:20 PM
78	95819	6/15/2018 3:01 PM
79	95819	6/15/2018 2:20 PM
80	95819	6/15/2018 1:09 PM
81	95819	6/15/2018 11:56 AM
82	95819	6/15/2018 11:20 AM
83	95819	6/15/2018 9:27 AM
84	95819	6/15/2018 8:33 AM
85	95819	6/15/2018 8:20 AM
86	95819	6/15/2018 8:09 AM
87	95819	6/15/2018 6:47 AM
88	95819	6/15/2018 6:28 AM
89	95819	6/14/2018 7:59 PM
90	95819	6/14/2018 7:45 PM
91	95819	6/14/2018 6:11 PM
92	95819	6/14/2018 4:44 PM
93	95819	6/14/2018 4:30 PM
94	95819	6/14/2018 4:13 PM
95	95814	6/14/2018 4:05 PM
96	96819	6/14/2018 3:55 PM
97	95819	6/14/2018 3:29 PM
98	95819	6/14/2018 3:20 PM
99	95819	6/14/2018 3:11 PM
100	95819	6/14/2018 2:58 PM
101	95819	6/14/2018 2:49 PM
102	95818	6/14/2018 2:37 PM
103	95819	6/14/2018 2:34 PM
104	95819	6/14/2018 2:23 PM
105	95819	6/14/2018 2:15 PM
106	95819	6/14/2018 2:00 PM
107	95819	6/14/2018 1:49 PM
108	95819	6/14/2018 1:30 PM
109	95811	6/14/2018 1:28 PM
110	95819	6/14/2018 1:17 PM
111	95819	6/14/2018 12:18 PM
112	95819	6/14/2018 12:17 PM
113	95819	6/14/2018 11:45 AM
114	95819	6/14/2018 11:12 AM
115	95816	6/14/2018 11:07 AM
116	95819	6/14/2018 11:00 AM
117	95819	6/14/2018 10:28 AM

118	95818	6/14/2018 9:54 AM
119	95820	6/13/2018 12:52 PM
120	95819	6/11/2018 3:51 PM
121	95819	6/11/2018 3:18 PM
122	95819	6/11/2018 11:10 AM
123	95819	6/10/2018 11:53 AM
124	95819	6/9/2018 3:09 PM
125	95819	6/9/2018 2:59 PM
126	95819	6/9/2018 2:29 PM
127	95819	6/9/2018 2:02 PM
128	95819	6/9/2018 1:24 PM
129	95819	6/9/2018 1:19 PM
130	95819	6/9/2018 12:49 PM
131	95819	6/9/2018 11:53 AM
132	95819	6/9/2018 11:49 AM
133	95819	6/9/2018 10:43 AM
134	95818	6/9/2018 10:32 AM
135	95819	6/9/2018 10:30 AM
136	95819	6/9/2018 10:25 AM
137	95819	6/9/2018 10:07 AM

Q7 Do you have any additional comments?

Answered: 91 Skipped: 46

#	RESPONSES	DATE
1	Pavement will destroy the natural beauty of this area forever. It will never be the same. There is absolutely no reason why Sacramento trails have to be paved in order to be considered "connected".	10/27/2018 9:31 AM
2	This paving is going to be done whether or not the residents of River Park agree. It makes no difference at all if we object. It's sort of like voting; whether voted for or not, it will be pushed through.	10/26/2018 7:15 PM
3	I meet people from all over the region who come to the lower trail. During the summer many rafters dock pulling their rafts and gear across the lower trail. they deflate the rafts and taking up the entire width of the trail.	10/25/2018 4:53 PM
4	very much opposed to paving this section of the American river trail. fast-moving bikes already have a lane across the river and us slow moving walkers (aged, young, hikers etc.) need a place to access the river too.	10/25/2018 2:51 PM
5	I strongly do NOT want the paved road. Bike clubs travel ever weekend on the unpaved road. The area is beautiful in its natural state. My family travel to downtown on the path without any problems. I feel the pave will also leave to move shopping carts, liter, and ruin the environment for families and animals.	10/15/2018 10:10 AM
6	We want to preserve this tiny sliver of nature so that we may enjoy the quiet and beauty of the little bit of natural space that still exists near us. Paving the lower section of the levee and encouraging bicycle use will destroy the lovely peacefulness and quiet of this area. There is already a bike trail on the other side of the river--which we use frequently. Leave the walking and dog-walking path on the other side for those who need to experience the outdoors in another way. There are too few natural areas like it left.	10/13/2018 10:21 AM
7	Keep up the good work!	10/8/2018 1:47 PM
8	If you pave the upper trail, people will ride their bikes on the lower dirt trails. I have almost been hit by bicyclists on multiple occasions. They go fast around blind corners and terrify walkers. If there are more bicycles on the dirt foot trails (which are very narrow) people who walk may be afraid to do so.	10/5/2018 7:34 PM
9	sounds like your attorney is not willing to take this to court if necessary. Refer to my email from NRDC with ideas of local attorneys to contact to help out. Ann Naimark	10/4/2018 11:26 AM
10	We need the trees lining the river to help be a shock absorber against flood waters!	10/4/2018 8:27 AM
11	Leave this beautiful stretch alone. There are plenty of places for fast biking without endangering families and dogs crossing the levee.	10/3/2018 9:47 AM
12	Safety laws and regulations will be compromised for the development and construction of a paved pathway along the toe of the levee.	10/3/2018 8:19 AM
13	Paving the trail would take away the beauty, functionality, and river park sanctuary for outdoor activity serving East Sacramento and River Park's residents, pets, and children	10/3/2018 4:55 AM
14	I'm appalled that the city is willing to pay a 1.5 million dollar fine to remove protected elderberry trees. Also I do bike ride on the parkway & the north side is already paved, so its easy to get downtown already. Though the homeless can be quite frightening on the paved trail sections!	10/3/2018 12:05 AM
15	Seniors on foot sometime have trouble coping with fast bicycles	10/2/2018 2:40 PM
16	Prefer bike trail on the upper levee over lower trail. Which is where we usually ride anyway when commuting.	8/21/2018 1:53 PM
17	The trails as they are currently are a welcome reprieve from the concrete that surrounds us! Green spaces (space with trees, plants, etc.) have been shown to prevent violence and we are concerned that paving the trails would impact the green space that surrounds us. We need more green space, not less.	8/16/2018 9:14 PM

Survey of American River Parkway lower and upper levee trail users between Sutter's Landing and H Street Bridge in Sacramento, California

SurveyMonkey

18	don't pave!	8/16/2018 8:53 PM
19	Keep the bike path on the top of the levee.	8/16/2018 6:40 PM
20	If the trail goes in I will likely sell my home. I do not feel that this neighborhood is properly or accurately represented.	8/16/2018 3:23 PM
21	I think that it's a waste of money to pave a portion of the parkway that doesn't need it. There should be a place for walkers and runners can go that doesn't cater to bikes. They have the other section of parkway to ride on.	8/16/2018 3:16 PM
22	Leave the trail unpaved. It is nice to have undeveloped areas of nature within communities.	8/16/2018 2:48 PM
23	I can think of a million better things to spend 6 million dollars on. Most of the these bike people are dangerous, they mow us walkers down. Jeff Harris can drive is car to work.	8/16/2018 1:16 PM
24	Please let walkers have a trail too! There is the other side of the river (connecting from Sac State) and Elvas for bikes. Walkers should have walkways too!!	8/7/2018 9:55 PM
25	I am opposed to paving the lower section. It isn't necessary when the upper portion is available and we certainly don't need to make it easier for the homeless to infiltrate our area.	7/17/2018 9:33 PM
26	Save Don't Pave!	7/4/2018 6:54 PM
27	Paving this trail is a waste of money - there is a paved trail on the other side of the river and nearby access to that trail via the Sac state Bridge	7/4/2018 1:20 PM
28	I'm biased. I would like to see this left as is.	7/3/2018 11:22 PM
29	Paving would be a travesty and an insult to nature	7/3/2018 7:41 PM
30	PLEASE SAVE DON'T PAVE. It is crucial to the integrity of River Park as a safe neighborhood.	7/3/2018 6:05 PM
31	Area between Bus 80 bridge and Glen Hall looks natural.	7/1/2018 9:52 PM
32	Until the homeless population and criminal activity around the river is controlled better we do not feel safe with the expansion of the trails. This will only invite and ease access to those who want to illegally camp and pollute our beautiful American River	6/21/2018 2:29 PM
33	I see frequent bike riders on the levee already. I was almost run by a large group of riders speeding around a blind curve at the park. Thank goodness one of the first riders yelled at me to get off the levee!	6/21/2018 12:36 PM
34	The continual urbanization of East Sac and River Park by the City of Sacramento, without regard to the impacts from traffic, access, and quality of life for residents, is abhorrent. With the commercialization of the Howe/Fair Oaks intersection and impacts on traffic there, along with the 'bicycle friendly' intersection at Carlson/H & J Sts (which the bicyclists seldom use, I might add) have impacted ingress and egress to River Park substantially. Millions of dollars spent to accomodate bicyclists is good judgement in Davis, perhaps, but not East Sac. This natural section of the river is the sole reason I moved to River Park when relocating to Sacramento 25 years ago. Seems a shame to ruin it, when it is already bike friendly enough. Aren't there better places to spend our money that everyone will benefit from?	6/21/2018 9:53 AM
35	I use the upper trail to bike and jog. I use the lower trail to walk my dog and job. I don't think we need two paved sides of the river. It's nice to have both options.	6/21/2018 8:59 AM
36	We bought a home in this neighborhood specifically due to the proximity to this unlaced section of the American River Parkway. It is very special.	6/21/2018 4:10 AM
37	Keep it wild	6/20/2018 9:49 PM
38	The biggest treasure of the levee path is that it is different from what exists on the rest of the parkway, in other words, it is not paved and is a more natural environment.	6/20/2018 9:48 PM
39	I worry about all the kids that play in the park and wander to the trail with bikes that potentially could be using the trail when paved.	6/18/2018 5:18 PM
40	Don't pave this trail! We like having some dirt trails nearby, nor do we want all the weekend bike traffic like other parts of the ARP where my friends have been hit by cyclists and seriously injured	6/18/2018 9:22 AM

41	The American River Parkway is the great jewel of Sacramento. It should be kept as a preserve for birds, river otters, foxes, and all the other animals that live there and native plants that grow there. "Improving it" destroys its natural beauty and ecological integrity. If you pave the trail, bicyclists will also start riding at high speeds on the narrow dirt paths and sooner or later someone walking will be seriously injured.	6/17/2018 10:25 PM
42	Do not destroy the wildness of this part of the Parkway by paving--removing trees and other vegetation to do so--nor by building bridges across the American River!!	6/17/2018 8:31 AM
43	Please don't pave it!!	6/16/2018 7:02 PM
44	The lower dirt trail with the close bordering trees and bushes is so serene and beautiful. I can not even bare to imagine it paved!	6/16/2018 5:20 PM
45	I hope this helps.	6/16/2018 11:33 AM
46	Thank you for the mailer. We attended the spring meeting at the school. We are very disturbed by the new information regarding the bridge at Glenn Hall	6/16/2018 8:35 AM
47	Paving the trail is not a well reasoned decision due to the additional law enforcement, maintenance and oversight required.	6/15/2018 6:33 PM
48	This area is the last nature area devoid of other uses (such as bicycle commuting/use). In my lifetime there have been efforts to prevent other uses (such as motorcycle dirt bike riding). Given the past efforts to eliminate the types of vehicular activity, it is unclear to me why is there now a movement to reverse this, especially when alternative trails are already in place/maintained to provide bicycle commute and recreational uses.	6/15/2018 3:52 PM
49	PAVE IT! Hell, Build that Bridge too! Ya buncha bastard NIMBYs	6/15/2018 3:20 PM
50	Save don't pave	6/15/2018 2:20 PM
51	Save don't pave	6/15/2018 1:09 PM
52	June 13 and 14, 2018, saw six homeless bicycle and cart transients accessing paved path at Sutter's Landing, one walker/camper.	6/15/2018 11:56 AM
53	Please save the unpaved glory of the American River	6/15/2018 11:20 AM
54	Keep up the pressure! Thank you	6/15/2018 8:33 AM
55	No	6/15/2018 8:20 AM
56	While I am concerned about the proposed changes (paving and bridge) the real unaddressed issue is that the park is not properly managed. If it were safe and campfree I would be more willing to support other changes, but I think proper safety and maintenance should come first.	6/15/2018 8:09 AM
57	Save Don't Pave!	6/15/2018 6:47 AM
58	There is already a paved bike trail easily accessible all the way downtown. Why must every inch of paradise be paved?	6/15/2018 6:28 AM
59	My family uses this trail every day. We live in River Park now, but for 20 years we would drive from Tallac Village to walk or ride bikes several times a week on the lower trail with our kids and dogs. Our dogs could tell where we were driving as we neared Glen Hall Park, and would stick their heads out the window in excitement. Back to nature is the way to go. Pavement takes away the aspect of multi-use. "If it ain't broke, don't 'fix' it." Save taxpayer money.	6/14/2018 7:59 PM
60	Pros-After the Spring RPNA meeting, I was persuaded that access to wheelchairs, strollers, tricycles, and a safer bike commute path are benefits to a paved path. Also, some who currently use the gravel top of the levee might move down to a paved area and reduce the looking into backyards of those houses along the levee. Also, some said crime is reduced where river paths are paved. Cons-scenic character would be altered and hazard of high speed bike racers. In balance, I no longer oppose paving.	6/14/2018 6:11 PM
61	Increased paved access would hwlp commuters, people in wheelchairs, families with strollers. The increased foot traffic will chase the homelss away from our neighborhood. Opposition to paving is pure NIMBYism	6/14/2018 4:30 PM
62	Why do we need TWO paved Bike Paths on the River????? I heard that some officials say , they don't care what we say, they know what is best for us!! WOW	6/14/2018 4:13 PM

63	Harris et al say "they can't" pave the top of the levee. (See section near H St Bridge for anecdotal debunking) Why?	6/14/2018 4:05 PM
64	Love the trails! My quiet time early every morning.	6/14/2018 3:55 PM
65	I would like to see the lower trail remain unpaved.	6/14/2018 3:29 PM
66	I've fished, walked, swam this area for over 50 years. I was a lifeguard at Glenn Hall city pool. This area should be left as is for the those that enjoy nature and to keep it from becoming a homeless campground full of litter, needles and human waste !! KEEP IT AS IS !!!!	6/14/2018 3:11 PM
67	Don't pave this special spot.	6/14/2018 2:58 PM
68	Paving the lower levee trail will increase bike traffic and increase access for petty criminals to vandalize the parkway and people's homes. Police don't do anything about crime now and we shouldn't expect that to improve with the paved bike trail	6/14/2018 2:49 PM
69	Not sure how this will be an improvement or who wants it. It now has a pleasant local feel that bikers, amblers , baby pushers can use with little conflict.	6/14/2018 2:37 PM
70	This is one of my favorite places in Sacramento.	6/14/2018 2:34 PM
71	I sincerely hope you can SAVE this natural area of the American River...it's really all we have left. PLEASE, PLEASE DO NOT PAVE THIS SECTION OF THE PARKWAY!!!	6/14/2018 2:23 PM
72	Leave what little is left of the riparian forest for future generations.	6/14/2018 2:15 PM
73	I live on the levee side and simply enjoy sitting out in my backyard enjoying nature which will be disrupted by the proposed trail.	6/14/2018 1:30 PM
74	I would like to know what your plan for the homeless population is, other than act like they don't exist. I've seen no information about how this will affect the homeless - on either side - except to say it will keep them away. As residents of Sacramento, and users of the trail, I think it is our responsibility to also care for the homeless. Paving or not paving and saying it will "decrease homelessness" is not enough. Both sides need to come up or help with solutions.	6/14/2018 1:28 PM
75	For the sake of folks who commute by bike to dowbpntown, I favor paving the trail..	6/14/2018 12:18 PM
76	I have used this area for over 30 years, it will be a shame if the paving project goes through.	6/14/2018 12:17 PM
77	pave and rave. hike and bike.	6/14/2018 11:12 AM
78	A paved trail means more accidents. Hundreds of people cross this dirt road every day on bikes, foot, baby strollers, dogs, ice chest carriers, and fisherman. Paving ruins the whole idea of a park.	6/14/2018 11:07 AM
79	We walk on the upper part for ease but enjoy the natural setting that we can see on the lower part. We want to look at nature, not bicyclists!	6/14/2018 10:28 AM
80	If it ain't broke, don't fix it. Spend the \$\$ where it is more needed like helping homeless.	6/14/2018 9:54 AM
81	Paving one of the trails gives access and continuity to the trail system and encourages people to use alternative modes of transportation to get around the city. Framing the argument to prevent paving of any type is a NIMBY excuse to keep people out of a lilly white neighborhood because everyone knows that people on bikes are 'problem people'.	6/13/2018 12:52 PM
82	The River is a gorgeous ecosystem and I appreciate the natural beauty of the dirt lower levee trail. Paving it is just another raping of Mother Nature. When will our poor planet get a break from gratuitous destruction?	6/11/2018 3:18 PM
83	Paving the levee toe will forever change the character, feel and experience felt along this section of the riverine environment. It will be much more busy, hotter and less inviting to walkers.	6/10/2018 11:53 AM
84	The river is why we moved here. It is a part of our lives.	6/9/2018 3:09 PM
85	I am not sure who they want to use the paved trail. The American river flood control won't let me (lived here 55years) build stairs behind my house but they want it accessible to thousands who can easily get downtown across the river. Walking behind my house in nature if paved will be dangerous as spandex bikers go 20 miles per hour.	6/9/2018 2:59 PM
86	Please preserve this trail — it's so valuable to walkers (especially children and older citizens) who don't want to be mowed down by fast-moving bicycle traffic.	6/9/2018 2:02 PM
87	I am so annoyed with our local government officials. They don't listen and are not deserving of our trust.	6/9/2018 11:53 AM

88	I regularly ride my ride on the unpaved trail with no difficulties.	6/9/2018 11:49 AM
89	I love to be in God's nature, away from the cars and the roads and the hustle and bustle of city life.	6/9/2018 10:43 AM
90	No	6/9/2018 10:30 AM
91	I find the unpaved portion of the trail a chance to walk in and with nature. It is often the one and only chance I get in my busy week to reflect on and enjoy the natural world we have so close to home. I cannot enjoy the same on a paved bike trail with other users speeding past on their bicycles. They do not, and should not, overrule the peace and solitude of an early morning walk along our beautiful parkway.	6/9/2018 10:25 AM

EXHIBIT C

Baseline Recreational Weekday and Weekend Use Data on Glenn Hall Access Point to Paradise Beach

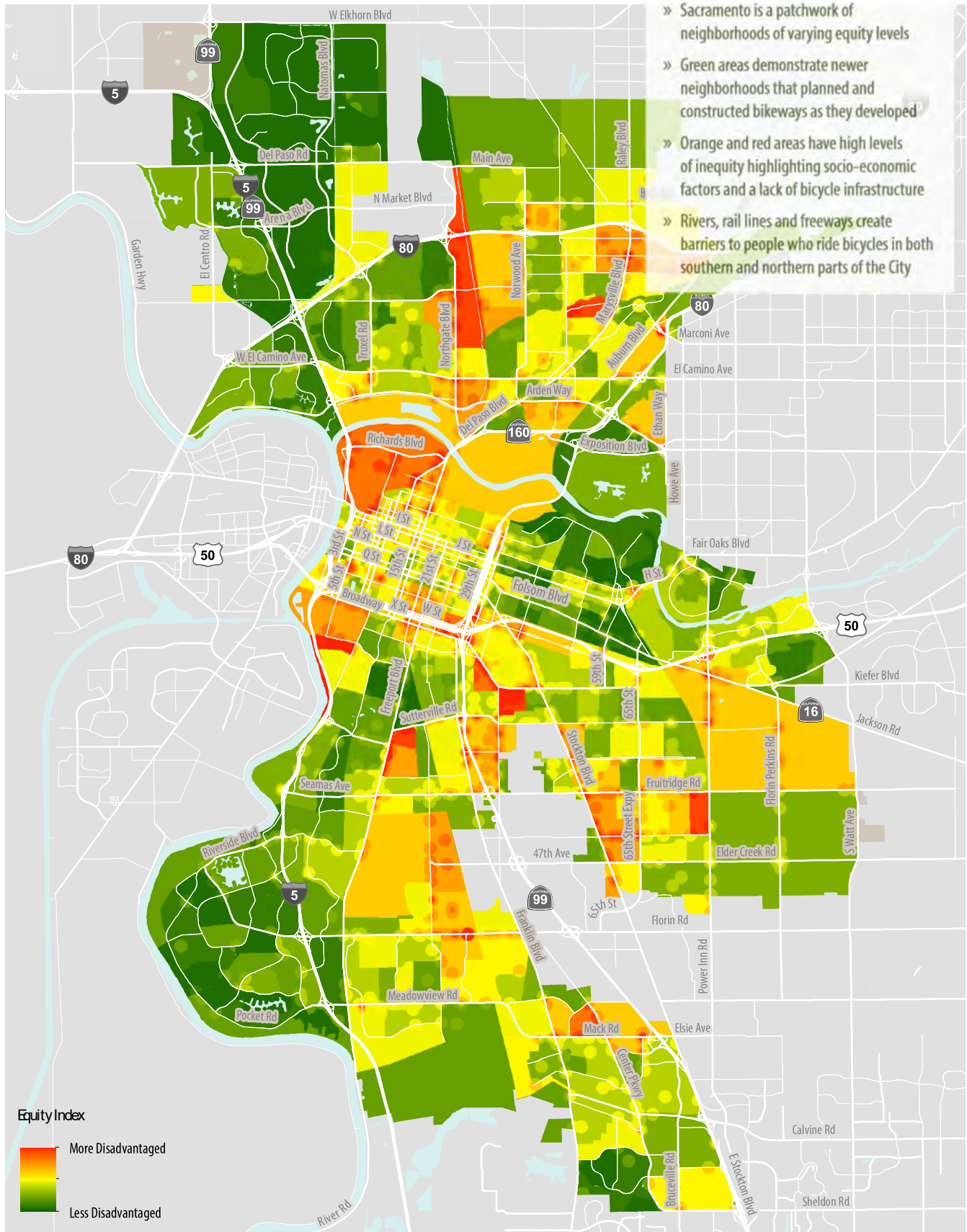
Week Day Shifts								Weekend Day Shifts							
Top of Levee								Top of Levee							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	11	0	2	2	1	0	16	5:30am - 7:30am	7	0	6	5	0	0	18
7:30am - 9:30am	11	0	2	7	1	ARFC truck	21	7:30am - 9:30am	3	2	3	13	31	0	52
9:30am - 11:30am	20	0	9	6	1	1 stroller, 1 baby in pack	36	9:30am - 11:30am	23	0	10	17	27	2 strollers	77
11:30am - 1:30pm	13	3	5	2	3	0	26	11:30am - 1:30pm	22	1	5	4	12	0	44
1:30pm - 3:30pm	11	0	2	1	2	1 ranger	16	1:30pm - 3:30pm	27	5	4	2	0	0	38
3:30pm - 5:30pm	6	0	1	4	4	0	15	3:30pm - 5:30pm	41	9	5	12	6	0	73
5:30pm - 7:30pm	33	1	9	7	10	0	60	5:30pm - 7:30pm	19	5	4	3	9	0	40
7:30pm - 9pm	11	0	2	1	3	0	17	7:30pm - 9pm							0
Total	116	4	32	30	25		207	Total	142	22	37	56	85		342
Bottom of Levee								Bottom of Levee							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	25	18	1	0	0	0	44	5:30am - 7:30am	11	0	8	3	2	0	24
7:30am - 9:30am	17	0	10	3	0	0	30	7:30am - 9:30am	37	0	27	13	2	0	79
9:30am - 11:30am	18	1	25	9	0	0	53	9:30am - 11:30am	17	0	11	10	3	0	41
11:30am - 1:30pm	9	3	5	0	0	0	17	11:30am - 1:30pm	5	2	7	5	6	0	25
1:30pm - 3:30pm	10	0	2	1	0	2 strollers	13	1:30pm - 3:30pm	35	0	8	2	9	0	54
3:30pm - 5:30pm	0	0	0	0	0	0	0	3:30pm - 5:30pm	10	0	0	0	7	0	17
5:30pm - 7:30pm	11	3	7	0	2	0	23	5:30pm - 7:30pm	22	3	15	3	3	0	46
7:30pm - 9pm	8	3	5	3	2	0	21	7:30pm - 9pm							0
Total	98	28	55	16	4		201	Total	137	5	76	36	32		286
Cross Traffic								Cross Traffic							
Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)	Shift	Adult pedestrians	Pedestrians under ~12	Dogs	Runners/joggers	Bikers	Other	Total (not including Other)
5:30am - 7:30am	14	0	13	4	0	0	31	5:30am - 7:30am	28	0	23	0	1	0	52
7:30am - 9:30am	23	0	30	0	2	0	55	7:30am - 9:30am	28	0	20	8	0	0	56
9:30am - 11:30am	31	1	25	2	6	2 strollers	65	9:30am - 11:30am	64	7	41	8	6	2 strollers	126
11:30am - 1:30pm	26	2	10	0	1	0	39	11:30am - 1:30pm	91	25	32	1	4	0	153
1:30pm - 3:30pm	69	11	11	0	1	4 strollers, 1 police officer, 1 ranger	92	1:30pm - 3:30pm	250	56	26	0	3	0	335
3:30pm - 5:30pm	85	14	21	0	1	0	121	3:30pm - 5:30pm	291	46	45	3	5	0	390
5:30pm - 7:30pm	119	11	34	2	2	0	168	5:30pm - 7:30pm	189	34	26	0	4	0	253
7:30pm - 9pm	76	2	18	0	0	0	96	7:30pm - 9pm							0
Total	443	41	162	8	13		667	Total	941	168	213	20	23		1365

EXHIBIT D

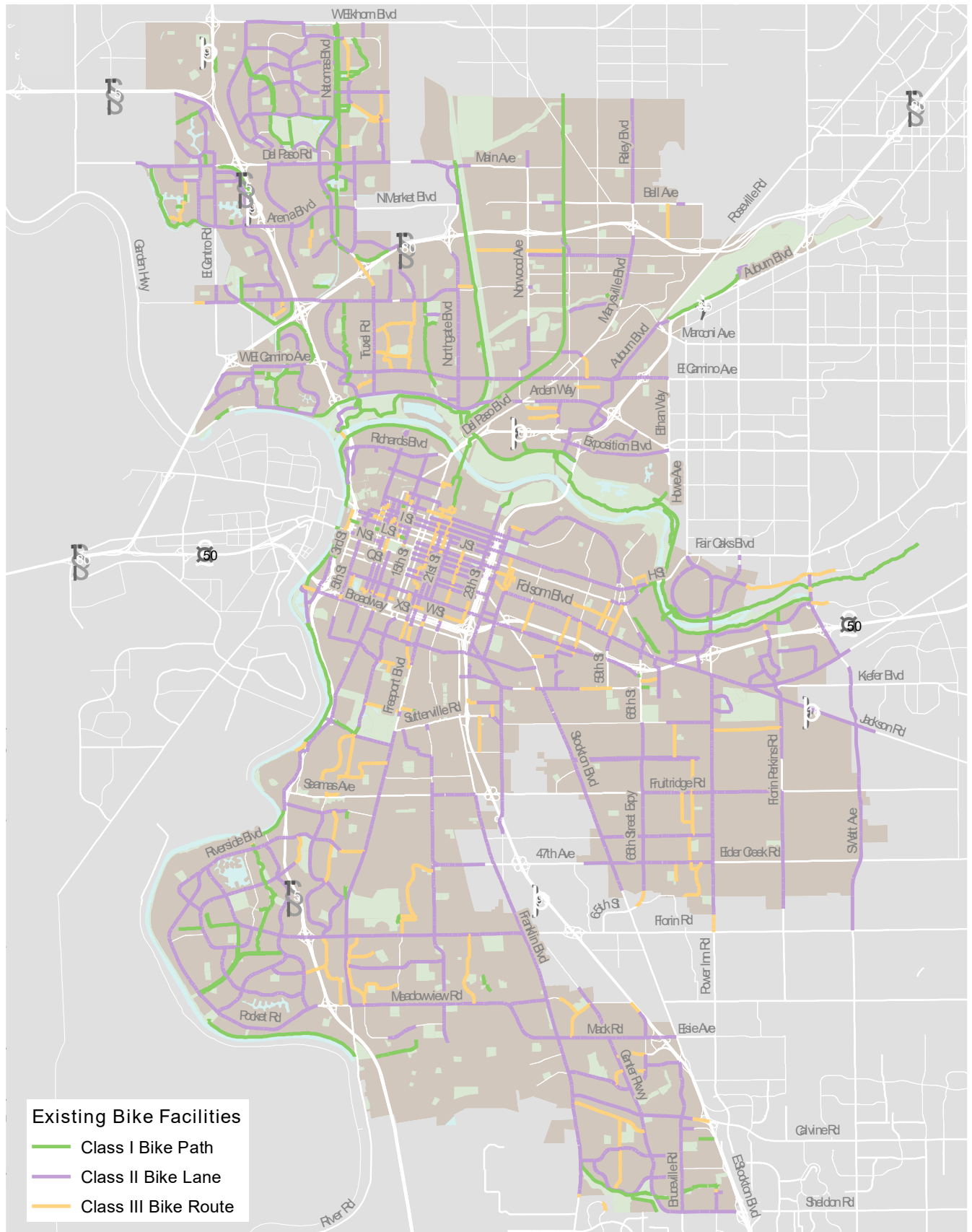
Equity Analysis Composite Index

Key Findings

- » Sacramento is a patchwork of neighborhoods of varying equity levels
- » Green areas demonstrate newer neighborhoods that planned and constructed bikeways as they developed
- » Orange and red areas have high levels of inequity highlighting socio-economic factors and a lack of bicycle infrastructure
- » Rivers, rail lines and freeways create barriers to people who ride bicycles in both southern and northern parts of the City



Existing Bikeways



- Existing Bike Facilities**
- Class I Bike Path
 - Class II Bike Lane
 - Class III Bike Route

EXISTING CONDITIONS

EXHIBIT E

Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle
(*Desmocerus californicus dimorphus*)



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May 2017

Service Contact

The Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) (Framework) was prepared by the U.S. Fish and Wildlife Service's Sacramento Fish and Wildlife Office. If you have questions regarding the Framework, please call (916) 414-6600. To download a copy of the Framework please visit:

https://www.fws.gov/sacramento/documents/VELB_Framework.pdf

Suggested Citation

U.S. Fish and Wildlife Service. 2017. Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*). U.S. Fish and Wildlife Service; Sacramento, California. 28 pp.

1.0 Introduction

The U.S. Fish and Wildlife Service (Service) is issuing this Framework to assist Federal agencies and non-federal parties in evaluating the potential effects of their projects on the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) (VELB), listed as threatened under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). This framework can be consulted during the development of any project that may affect VELB or its habitat. It is intended to help project applicants assess potential effects to the VELB and develop measures to avoid, minimize, and compensate for adverse effects to the species or its habitat. It may also help determine whether those projects will require incidental take authorization through a section 7 consultation or a section 10(a)(1)(B) permit. Proposed projects that will have large landscape level impacts, are likely to provide a net conservation benefit, or will involve riparian restoration may need a different or more detailed analysis than what is provided here. Applicants and agencies proposing these, or similar types of projects, should discuss the project with the Service early in the planning process. The Framework may still provide guidance for an effects analysis, but these projects may exercise more flexibility when implementing conservation measures and compensation.

The primary goal of this document is to articulate a conceptual ecological model for the species. This framework represents the Sacramento Fish and Wildlife Office's current analytical approach for evaluating and assessing adverse effects to the VELB. It will be updated as new information becomes available. As always, the Service welcomes dialog and discussion with our partners in assessing impacts for particular projects and encourages project proponents to consult with the Service early in project development whenever possible.

The VELB is protected under the Act wherever it is found. Visual surveys for the VELB, which includes looking for adults and/or exit holes, are currently the only approved method of surveying for the species and are not entirely reliable for determining presence or absence (see below). Visual surveys, habitat assessments, and mitigation site monitoring do not require a section 10(a)(1)(A) recovery permit. Inquiries about other survey methods, recovery permits, and research should be directed to the Listing and Recovery Division at (916) 414-6600.

1.1 Previous Federal Actions

The VELB was listed as a threatened species under the Act on August 8, 1980 (Federal Register 45: 52803-52807). Concurrent with the final listing rule, two areas in Sacramento County were designated as critical habitat for the VELB (Appendix A). The first area, referred to as the "Sacramento Zone", is enclosed by California State Route 160 to the north, the Western Pacific railroad tracks to the west/southwest, and by Commerce Circle to the east. The second area, referred to as the "American River Parkway Zone", is actually two separate areas along the south bank of the American River in Rancho Cordova. A recovery plan for VELB was completed on June 28, 1984; however, due to a lack of information regarding VELB life history, distribution, and habitat requirements, the recovery plan

only described interim actions and not precise recommendations (Service 1984). For more information about VELB, its designated critical habitat, and the VELB recovery plan, please visit:

<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7850>.

On September 10, 2010, the Service was petitioned to delist the VELB and on August 19, 2011, the Service responded with a 90-day finding that determined the petition contained substantial information indicating that delisting VELB may be warranted (Federal Register 76: 51929-51931). On October 2, 2012, the Service published a proposed rule to delist VELB and to remove the species' critical habitat designation (Federal Register 77: 60238-60276). However, after receiving additional information regarding VELB, the Service did not delist the species and published the September 17, 2014, Withdrawal of the Proposed Rule to Remove the Valley Elderberry Longhorn Beetle From the Federal List of Endangered and Threatened Wildlife (Federal Register 79: 55874-55917) (Withdrawal Rule). The August 8, 1980, final listing rule and the Withdrawal Rule both described habitat loss as the primary threat to the species.

2.0 Life History

The VELB is a small (0.5 - 0.8 in.) wood-boring beetle in the *Cerambycid* family. It is sexually dimorphic and the females are indistinguishable from the more widespread California elderberry longhorn beetle (*Desmocerus californicus californicus*). Elderberry shrubs (*Sambucus* spp.) are the obligate larval host plants for the VELB (Collinge et al. 2001, Holyoak 2010) and their larvae go through several developmental stages (instars) within the elderberry shrub (Greenberg 2009). Eggs are laid individually on leaves or at the junctions of the leaf stalk and main stem (Barr 1991). Upon hatching, the larvae bore into the elderberry stem (Halstead and Oldham 1990) and create feeding galleries in the pith (Burke 1921, Barr 1991). Prior to pupation, the larvae creates an exit hole, plugs the hole with wood shavings, and returns to the gallery where it pupates (Halstead and Oldham 1990). Approximately 1 month later, the adult beetle emerges from the stem through the previously created exit hole (Burke 1921). Adult emergence, mating, and egg-laying, occurs in the spring and summer (March to July), typically coinciding with the elderberry flowering period (Burke 1921, Halstead and Oldham 1990). Under laboratory conditions, adult males typically live 4 to 5 days, while females can live up to 3 weeks (Arnold 1984). The only identifiable exterior evidence of elderberry use by VELB is the exit hole created by the larvae.

3.0 Range and Habitat Description

The VELB is protected wherever found. The current presumed range extends throughout the Central Valley (<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7850>). The range extends from approximately Shasta County in the north to Fresno County in the south including the valley floor and lower foothills. The majority of VELB have been documented below 152 meters (500 feet) in elevation. Areas above 152 meters (500 feet) with suitable habitat and known VELB occurrences in that drainage may contain VELB populations in certain circumstances. The Service can assist in determining the likelihood of occupancy above 500 feet.

3.1 Habitat

Historically, the Central Valley had large (3.2-8.0 km wide), undisturbed expanses of riparian vegetation associated with the watersheds that drained the west side of the Sierra Nevada Mountains and the east side of the Coast Mountain Range. These watershed systems were highly dynamic and their floodplains supported a wide corridor of riparian vegetation (Katibah 1984) in a diverse mosaic of structures and species assemblages from early successional to mature gallery forest (Gilbart 2009).

During the last 150 years California's Central Valley riparian forests have experienced extensive vegetation loss due to expansive agricultural and urban development (Katibah 1984), and in many places, have dwindled to discontinuous, narrow corridors. Natural areas bordering the rivers, which once supported vast tracts of riparian vegetation, became prime agricultural land (Thompson 1961). As agriculture and urbanization expanded in the Central Valley, needs for increased water supply and flood protection spurred water development and reclamation projects. Artificial levees, river channelization, dam building, water diversion, and heavy groundwater pumping have further reduced riparian vegetation to small, isolated fragments (Katibah 1984). In many places, flood control levees have been installed adjacent to and parallel with the river, effectively sectioning the riparian forest habitat into discrete communities on either side of the levee. In recent decades, riparian areas in the Central Valley have continued to decline as a result of ongoing agricultural conversion, urban development, stream channelization and channel hardening.

Elderberry shrubs are common in the Central Valley where they grow naturally in a variety of riparian and non-riparian vegetative communities (Vaghti and Greco 2007). Most elderberry presence within the Central Valley is determined by broad scale hydrologic regimes such as the relative elevation of floodplain and floodplain width, and secondarily by sediment texture and topography (Fremier and Talley 2009). Elderberry shrubs are most common on higher and older riparian terraces, where the roots of the plant are able to reach the water table and where the plants are not inundated for long periods (Talley 2005; Vaghti et al. 2009). Elderberry shrubs can be found on historic floodplain terraces above the river, on levees (both on the river and land sides), and along canals, ditches, and areas where subsurface flow provides water to elderberry roots. Elderberry shrubs typically occur in most vegetation communities that occupy historic and current floodplains and terraces, to the top of channel walls in deeply incised rivers (i.e., the Tuolumne and Stanislaus Rivers), and to the top of and on the land-side of levees where woody plants create savannas or patchy woodlands. Elderberry can be a canopy or subcanopy species depending on the hydrology, vegetation composition, or disturbance at a particular site and it can occur as individual shrubs, clumps, clusters, and groves. In non-riparian settings, elderberries occur either singly or in groups in valley oak and blue oak woodland and annual grasslands. It is not known whether elderberries in this setting are also associated with a shallow water table or other shallow water sources. In natural areas, elderberry shrubs have also been shown to grow best with little canopy cover from associated vegetation (Talley 2005).

The historic distribution of the VELB closely matched the distribution of the elderberry host plant, which was patchily found throughout the Central Valley riparian forests and occasionally adjacent uplands (non-riparian). The Service recognizes habitat for VELB as including both riparian and non-riparian areas where elderberry shrubs are present. Riparian habitat includes all areas that are either influenced by surface or subsurface water flows along streams, rivers, and canals (including the landside of levees) and areas that have the vegetation communities similar to those defined below.

Riparian vegetation communities within the California Central Valley can be described as valley-foothill forest habitat, which includes many different forest associations. Non-riparian habitat includes valley oak and blue oak woodland and annual grassland. The following habitat descriptions have been adapted from Mayer and Laudenslayer (1988) (<https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>).

Within California, valley-foothill riparian habitats occur in the Central Valley and the lower foothills of the Cascade, Sierra Nevada, and Coast mountain ranges. Riparian habitats show a wide range of both species and structural diversity. The valley-foothill riparian habitat is found in association with riverine, grassland, oak woodland, and agricultural habitats. Canopy height is about 30 meters in a mature riparian forest, with a canopy cover of 20 to 80 percent. Most trees are winter deciduous. There is a subcanopy tree layer and an understory shrub layer. Wild grapes (*Vitis californica*) frequently provide up to 50 percent of the ground cover and festoon trees to heights of 20-30 meters. Herbaceous vegetation constitutes about one percent of the cover, except in open areas where tall forbs and shade-tolerant grasses occur. Many non-native invasive species can also be found, and are sometimes common, in riparian habitat. Oak woodland, oak savanna, and elderberry savanna can occur as both riparian and non-riparian communities.

Dominant riparian canopy layer species include cottonwood (*Populus* sp.), California sycamore (*Platanus racemosa*), willow (*Salix* spp.) black walnut (*Juglans* spp.) and valley oak (*Quercus lobata*). Subcanopy trees include boxelder (*Acer negundo*) and Oregon ash (*Fraxinus latifolia*), and typical understory shrub layer plants include wild grape, wild rose (*Rosa* sp.), blackberry (*Rubus* sp.), poison oak (*Toxicodendron diversilobum*), and buttonbush (*Cephalanthus occidentalis*), and willows. The herbaceous layer consists of sedges (*Carex* sp.), rushes, grasses, miner's lettuce (*Claytonia* sp.), mugwort (*Artemisia* sp.), poison-hemlock (*Conium maculatum*), and hoary nettle (*Urtica dioica*). Many non-native woody species occur with elderberry including tree-of-heaven (*Ailanthus altissima*) and black locust (*Robinia pseudoacacia*)

Elderberry shrubs can be a common understory plant in both non-riparian valley oak and blue oak woodland habitats. Valley oak woodland is generally found at lower elevations than blue oak woodlands, but the two habitat types transition into each other in the lower foothill regions. Annual grasses and forbs dominate the herbaceous layer in both woodland habitat types (Mayer and Laudenslayer 1998) and both intergrade with annual grassland. Valley oak woodland can occur from savanna-like conditions to denser forest-like conditions, with tree density tending to increase along

natural drainages. Valley oak woodlands are almost exclusively dominated by valley oak, but may also contain sycamore, black walnut, blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and boxelder. Understory shrubs may include species such as, wild grape, toyon (*Heteromeles arbutifolia*), and California coffeeberry (*Frangula californica*). Blue oak woodlands can also occur from savanna-like conditions to denser forest-like conditions with a nearly closed canopy. Blue oak woodland is comprised of 85 to 100 percent blue oak trees, but may contain interior live oak and valley oak.

Common shrub associates include poison-oak, California coffeeberry, buckbrush (*Ceanothus cuneatus*), California buckeye (*Aesculus californica*), and manzanita (*Arctostaphylos* sp.). Within both of these habitats, elderberry may be found in the understory as well as in small clumps within the upland savanna. Elderberry shrubs are also often found away from riparian areas where ditches, irrigation, groundwater, or other features allow the plant to receive enough moisture and as ornamental plantings in regularly maintained landscaped areas.

3.1.1 Use of Riparian Habitat

Research suggests that the VELB occurs throughout the Central Valley in metapopulations (Collinge et al. 2001). Metapopulations are defined as a system of discrete subpopulations that may exchange individuals through dispersal or migration (Breininger et al. 2012, Nagelkerke et al. 2002). The VELB metapopulation occurs throughout contiguous intact riparian habitat as subpopulations that shift spatially and temporally within drainages, resulting in a patchwork of occupied and unoccupied habitat. Removal of suitable habitat (whether occupied or unoccupied) can increase the distance between occupied and unoccupied patches. Because its physical dispersal capability is limited, this fragmentation decreases the likelihood of successful colonization of unoccupied habitat (Collinge et al. 2001). As a consequence, the subpopulations are more vulnerable to stochastic events that may reduce or eliminate the subpopulation. The loss of multiple subpopulations can have an adverse impact on the long-term persistence and health of the metapopulation. Therefore, maintaining contiguous areas of suitable habitat is critical for maintaining the VELB.

At the local level, it appears that much of the variation in VELB occupancy of elderberry shrubs results from variables such as elderberry condition, water availability, elderberry density, and the health of the riparian habitat (Talley et al. 2007). This research indicates that healthy riparian systems supporting dense elderberry clumps are the primary habitat of VELB (Barr 1991, Collinge et al. 2001, Talley et al. 2006, Talley et al. 2007). Elderberry shrubs typically have a clumped distribution across the landscape (Figure 1) although they can occur singly. Upon emergence, VELB typically stay within the local clump (Talley et al. 2007). Talley et al. (2007) found that much of the time, distances between stems with exit holes averaged 25-50 meters (65-165 feet) apart. At larger scales, average distances between these occupied clumps ranged from 200 meters (656 feet) up to 800 meters (2,625 feet) (Figure 1).

Because the elderberry is the sole host plant of the VELB, any activities that adversely impact the elderberry shrub may also adversely impact the VELB. Adverse impacts to elderberry shrubs can occur

either at a habitat scale or at an individual shrub scale. Activities that reduce the suitability of an area for elderberry plants or elderberry recruitment and increase fragmentation may have adverse impacts to mating, foraging, and dispersal of VELB. The patchy nature of VELB habitat and habitat use makes the species particularly susceptible to adverse impacts from habitat fragmentation.

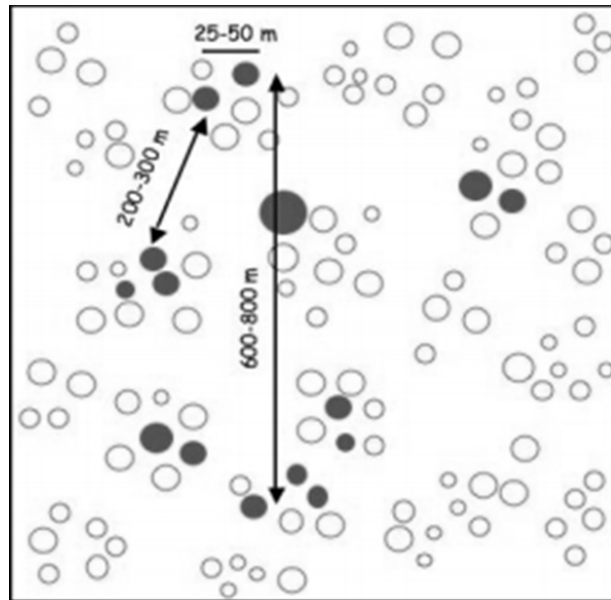


Figure 1. Schematic diagram of the spatial population structure of the valley elderberry longhorn beetle. Open circles represent unoccupied elderberry shrubs, closed circles are occupied by the valley elderberry longhorn beetle. Aggregation sizes and distances used are those found on the American River Parkway, where occupied clumps are approximately 25-50 meters apart, distances between aggregations of occupied clumps are approximately 200-300 meters, and the extent of the cluster of aggregations is 600-800 meters (Talley et al. 2006).

Determining whether an individual plant or clump is occupied by VELB can be challenging. Often the only external evidence that a VELB is present is the small exit hole made by the larva as it leaves the stem. Traditional exit hole surveys can help identify the past use of a particular shrub by VELB, but not its current occupancy. This difficulty makes assessing the likelihood of presence of individual VELB difficult. However, Talley et al. (2007) found that 73% of shrubs with old exit holes also had new exit holes, indicating that presence of an exit hole in the shrub increases the likelihood that that shrub or nearby shrubs are occupied. Therefore, impacts to individual shrubs with exit holes are reasonably likely to result in impacts to individual VELB, but the likelihood of adverse effects may not always be ascertained simply by the presence of exit holes (or the lack of). A more thorough analysis of nearby occurrences, surrounding habitat, and elderberry density is needed to fully address adverse impacts. In general, because of the difficulty in detecting VELB, the patchy nature of its distribution, and the importance of unoccupied habitat to maintain connectivity between VELB metapopulations, any

impacts to riparian habitat with elderberry shrubs present are likely to result in adverse effects to VELB.

3.1.2 Use of Non-Riparian Habitat

Much of the existing research has focused on the VELB's use of riparian habitat. In non-riparian habitats, a patchwork of individual shrubs provides opportunity for VELB occupancy, but it is unknown if the movement and distribution patterns remain consistent with the patterns found in riparian areas. In non-riparian areas, adverse effects to of VELB are likely to occur as a result of impacts to any elderberry shrub with exit holes, and adverse effects may result from disturbance to elderberry shrubs reasonably close to riparian areas or known VELB populations.

4.0 Occupancy Determination in Non-Riparian Habitat and Appropriate Surveys

The decision tree shown in Figure 2 is used by the Sacramento Fish and Wildlife Office to assess the effect of any proposed project on the VELB. It is recommended that proposed project sites within the range of the VELB be surveyed by a qualified biologist for the presence of elderberry shrubs. If elderberry shrubs are found on or within 50 meters (165 feet) of the project site, we recommend that the habitat be assessed to determine if the project area is in riparian or non-riparian habitat. Depending on the size, duration and/or type of proposed project, the larger area surrounding the project site may also be surveyed for the presence and number of elderberry shrubs.

If the project site is non-riparian and contains elderberry shrubs, we use exit hole surveys to evaluate the site for potential occupancy. Exit hole surveys are not essential in riparian areas, but may be conducted in order to assess the level and significance of adverse effects. The presence of exit holes in a shrub increases the likelihood that the shrub is occupied by VELB; however, a lack of exit holes does not preclude occupancy by the VELB. In the absence of exit holes we recommend that a biologist evaluate the project area using the following criteria (also shown in Figure 2):

1. Is there a riparian area, elderberry shrubs, or known VELB records within 800 meters (2,526 feet) of the proposed project?
Isolated, non-riparian elderberry clumps are less likely to be occupied or become colonized by VELB and those beyond 800 meters (2,526 feet) from the nearest elderberry clump become increasingly less likely to be occupied. Therefore, a qualified biologist can assess the distance of the elderberry shrub from the nearest riparian area, elderberry shrub, and known occupied elderberry location.
2. Was the site continuous with a historical riparian corridor?
Fragmentation of riparian corridors in the Central Valley has resulted in the isolation of elderberry shrubs or clusters that may provide important linkages between or within riparian corridors. A qualified biologist can evaluate the project location in the context of the historical riparian system. Isolated elderberry clumps that were part of a historic riparian vegetative community may still support VELB.

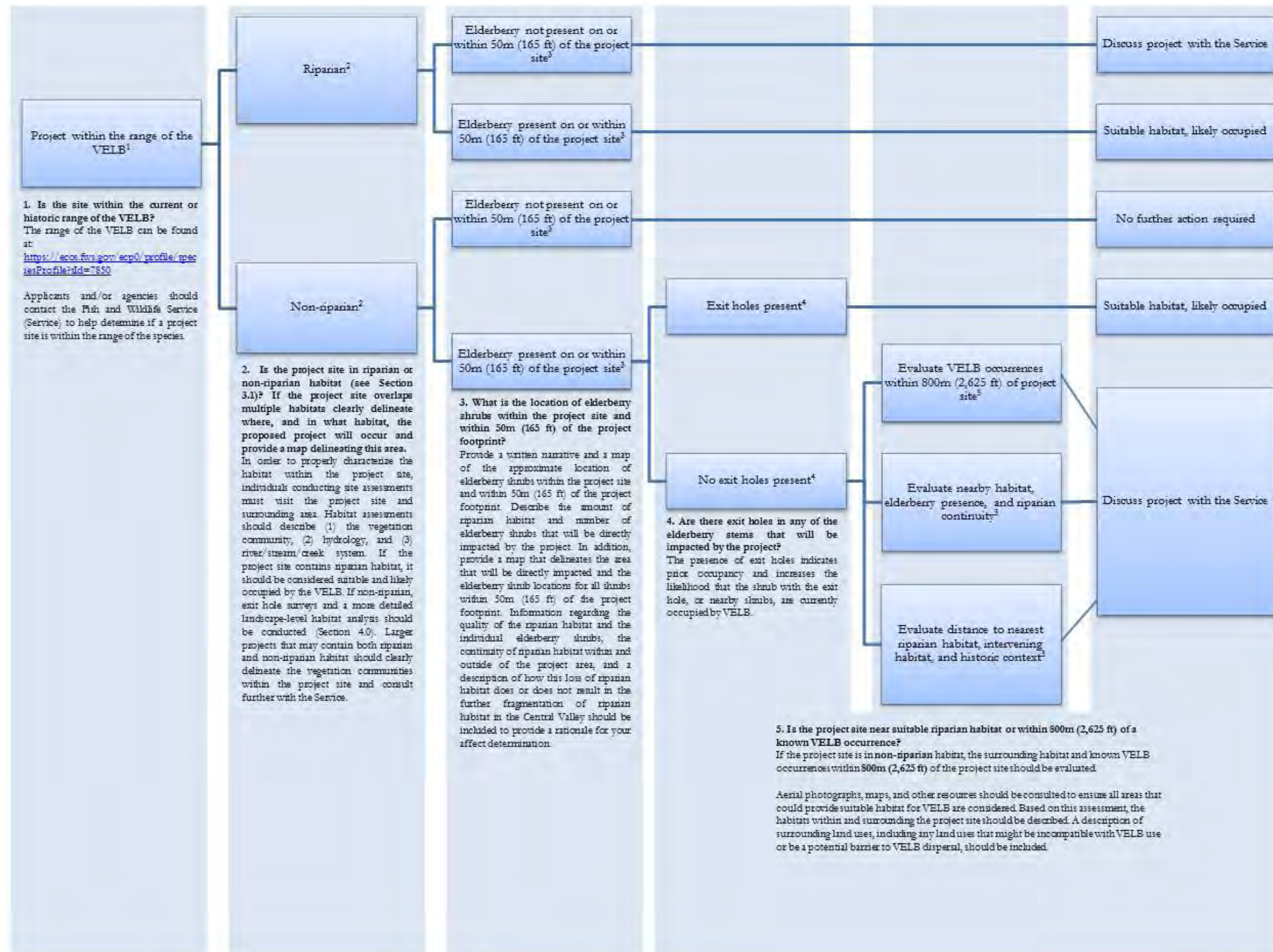


Figure 2. Decision tree to determine the likelihood of a particular elderberry shrub being occupied by valley elderberry longhorn beetle.

5.0 Conservation Measures

We encourage the development of proposed project designs that avoid riparian habitat and/or elderberry shrubs whenever possible. If elderberry shrubs occur on or within 50 meters (165 feet) of the project area, adverse effects to VELB may occur as a result of project implementation. If the project may affect VELB or its habitat, appropriate avoidance and minimization measures are recommended.

5.1 Avoidance and Minimization Measures

The following measures are recommended for incorporation into a proposed project to avoid and minimize effects to VELB and/or its habitat. Not all measures may be appropriate for every project, and agencies/applicants should coordinate with the Service to determine which measures may be needed. The text in this section and Section 5.2 is intended to provide language that may be used by agencies/applicants to describe avoidance and minimization measures for their proposed project.

Fencing. All areas to be avoided during construction activities will be fenced and/or flagged as close to construction limits as feasible.

Avoidance area. Activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) may need an avoidance area of at least 6 meters (20 feet) from the drip-line, depending on the type of activity.

Worker education. A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance.

Construction monitoring. A qualified biologist will monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented. The amount and duration of monitoring will depend on the project specifics and should be discussed with the Service biologist.

Timing. As much as feasible, all activities that could occur within 50 meters (165 feet) of an elderberry shrub, will be conducted outside of the flight season of the VELB (March - July).

Trimming (See 5.3). Trimming may remove or destroy VELB eggs and/or larvae and may reduce the health and vigor of the elderberry shrub. In order to avoid and minimize adverse effects to VELB when trimming, trimming will occur between November and February and will avoid the removal of any branches or stems that are ≥ 1 inch in diameter. Measures to address regular and/or large scale maintenance (trimming) should be established in consultation with the Service.

Chemical Usage. Herbicides will not be used within the drip-line of the shrub. Insecticides will not be used within 30 meters (98 feet) of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method.

Mowing. Mechanical weed removal within the drip-line of the shrub will be limited to the season when adults are not active (August - February) and will avoid damaging the elderberry.

Erosion Control and Re-vegetation. Erosion control will be implemented and the affected area will be re-vegetated with appropriate native plants.

5.2 Transplanting

In order to protect VELB larvae to the greatest extent possible, we recommend that all elderberry shrubs with stems greater than 1 inch in diameter be transplanted under the following conditions:

1. If the elderberry shrub cannot be avoided.
2. If indirect effects will result in the death of stems or the entire shrub.

Removal of entire elderberry plants without disturbance to the surrounding habitat is uncommon, but may occur on certain projects. The removal may either include the roots or just the removal of the aboveground portion of the plant. We encourage project applicants to attempt to remove the entire root ball and transplant the shrub, if possible. In order to minimize the fragmentation of VELB habitat, the Service encourages applicants to relocate elderberry shrubs as close as possible to their original location. Elderberry shrubs may be relocated adjacent to the project footprint if: 1) the planting location is suitable for elderberry growth and reproduction; and 2) the project proponent is able to protect the shrub and ensure that the shrub becomes reestablished. If these criteria cannot be met, the shrub may be transplanted to an appropriate Service-approved mitigation site. Any elderberry shrub that is unlikely to survive transplanting because of poor condition or location, or a shrub that would be extremely difficult to move because of access problems, may not be appropriate for transplanting. The following transplanting guidelines may be used by agencies/applicants in developing their VELB conservation measures:

Monitor. A qualified biologist will be on-site for the duration of transplanting activities to assure compliance with avoidance and minimization measures and other conservation measures.

Exit Holes. Exit-hole surveys will be completed immediately before transplanting. The number of exit holes found, GPS location of the plant to be relocated, and the GPS location of where the plant is transplanted will be reported to the Service and to the California Natural Diversity Database (CNDDDB).

Timing. Elderberry shrubs will be transplanted when the shrubs are dormant (November through the first two weeks in February) and after they have lost their leaves. Transplanting during the non-growing season will reduce shock to the shrub and increase transplantation success.

Transplanting Procedure. Transplanting will follow the most current version of the ANSI A300 (Part 6) guidelines for transplanting (<http://www.tcia.org/>).

Trimming Procedure. Trimming will occur between November and February and should minimize the removal of branches or stems that exceed 1 inch in diameter.

5.3 Impacts to Individual Shrubs

In certain instances, impacts to elderberry shrubs, but not the surrounding habitat may occur. This could take the form of trimming or complete removal of the plant. Trimming elderberry shrubs may result in injury or death of eggs, larva, or adults depending on the timing and extent of the trimming. Since the larva feed on the elderberry pith while they are developing, any trimming that could affect the health of the plant and cause the loss of stems may kill any larva in those stems. No adverse impacts to the VELB will occur if trimming does not remove stems/branches that are ≥ 1 inch in diameter and is conducted between November and February. Trimming that occurs outside of this window or removes branches ≥ 1 inch in diameter may result in adverse effects to VELB. In order to assess the risk of take from trimming activities, we recommend the following be evaluated:

1. Conduct an exit hole survey on the plant
2. Evaluate the surrounding habitat (riparian vs. non-riparian).
3. Evaluate the potential suitability of the plant to provide VELB habitat.
 - a. Riparian plants are much more likely to be occupied or colonized by VELB.
 - b. Plants in non-riparian locations should be evaluated using the criteria in Figure 2.

6.0 Compensatory Mitigation

For all unavoidable adverse impacts to VELB or its habitat, we recommend that lead agencies and project applicants coordinate with the Service to determine the appropriate type and amount of compensatory mitigation. For plants in riparian areas, compensation may be appropriate for any impacts to VELB habitat. In non-riparian areas, compensation is typically appropriate for occupied shrubs (Figure 2). Appropriate compensatory mitigation can include purchasing credits at a Service-approved conservation bank, providing on-site mitigation, or establishing and/or protecting habitat for VELB.

It is recommended that the permanent loss of VELB habitat be replaced with habitat that is commensurate with the type (riparian or non-riparian) and amount of habitat lost. Suitable riparian habitat may be replaced, at a minimum of 3:1 for all acres that will be permanently impacted by the project (Table 1). Suitable non-riparian habitat may be replaced, at a minimum of 1:1 for all acres that will be permanently impacted by the project (Table 1). We typically recommend that any shrub that will be adversely impacted by the project be transplanted to a Service-approved location.

We encourage agencies and/or applicants to propose appropriate compensation for all individual shrubs that will be impacted by the project. Strong compensation proposals consider the location of the plant (riparian or non-riparian) and the potential for the plant to be occupied by VELB (exit

holes present, likely occupied). Projects that only directly affect individual shrubs may consider replacing habitat based on the amount of effects that occur, the location of the shrub (riparian or non-riparian), and the presence of exit holes (non-riparian only) (Table 2). Impacts to individual shrubs in riparian areas may be replaced by the purchase of 2 credits at a Service-approved bank for each shrub that will be trimmed regardless of the presence of exit holes. If the shrub will be completely removed by the activity, the entire shrub may be transplanted to a Service-approved location in addition to the credit purchase. We recommend impacts to individual shrubs in non-riparian areas be replaced through a purchase of 1 credit at a Service-approved bank for each shrub that will be trimmed if exit holes have been found in any shrub on or within 50 meters (165 feet) of the project area. If the shrub will be completely removed by the activity, we suggest that the entire shrub be transplanted to a Service-approved location in addition to a credit purchase.

Table 1. Potential Valley Elderberry Longhorn Beetle Habitat-Level Compensation Examples

Habitat	Compensation Ratio ¹	Total Acres of Disturbance	Acres of Credits	Total Credit Purchase ²
Riparian	3:1	1.2 acres	3.6 acres	87.8
Non-riparian	1:1	0.5 acre	0.5 acre	12.1

¹ acre(s) of credits: acre(s) of disturbance

² One credit (unit) = 1,800 sq. ft.

Table 2. Valley Elderberry Longhorn Beetle Shrub-Level Impact Compensation

Habitat	Compensation Ratio ¹	If the entire shrub will be removed
Riparian	2:1	Transplant the shrub + 2:1 compensation
Non-riparian (exit holes present)	1:1	Transplant the shrub + 1:1 compensation

¹ number of credits: number of shrubs trimmed

² One credit (unit) = 1,800 sq. ft. or 0.041 acre

The compensation scenarios in Table 1 are examples of the amount of habitat (riparian or non-riparian) that may be appropriate to compensate for a project’s adverse impacts. Additional examples can be found in Appendix B. The amount of compensation deemed appropriate to offset effects to VELB will take into consideration the effects of the project and desired conservation outcome. The compensation examples in this Framework are for illustrative purposes only. Alternative methods for determining compensation should be coordinated with the Service. Currently, compensation at Service-approved VELB banks is partitioned into 1,800 sq. ft. basins.

Under this scheme, a single credit equals 1,800 sq. ft. or 0.041 acres. In order to calculate the total compensation credits needed for impacts to VELB, the total amount of disturbance in square feet should be calculated, the appropriate ratio applied, and the total number divided by 1,800.

We recommend that any project that occurs in suitable habitat (riparian or non-riparian) compensate for that loss in proportion to the total amount of habitat that will be disturbed as a result of project implementation. The acreage of habitat lost can be assessed based on all permanent surface disturbance including access routes and staging areas.

6.1 Compensatory Mitigation Proposals

If the lead agency or applicant is not purchasing credits at a Service-approved bank, they may compensate for habitat loss through on- or off-site mitigation. The Service has issued interim standards for the long-term management and protection of mitigation sites (https://www.fws.gov/endangered/improving_easa/). Those proposing on-site compensation, off-site habitat creation/enhancement, or those proposing to create a Service-approved conservation bank should work closely with the Service during the planning and development process. It is recommended that all plans adhere to the following criteria that are specific to VELB:

Site Selection and Development. Proposals using a strategic approach to ecosystem protection and restoration that will promote VELB metapopulation dynamics are preferred. Criteria for a suitable mitigation site may include abiotic factors such as soils, water availability, and prior land use as well as the proximity of the site to existing riparian habitat and known VELB records. Appropriate site selection is critical for achieving conservation success. A site that has incompatible soils or hydrology may not be able to meet the success criteria. Proposals that protect or enhance existing riparian habitat are preferred and the proposal should detail what, if any, measures will be needed to restore the site to ensure that it is suitable for elderberry survival.

Planting Plan. We recommend all proposals be designed to meet the desired distribution and density for elderberry shrubs and native associates that will be planted at the mitigation site in accordance with 1-3 below. The planting plan should be specific to the site and factors that will influence the success of the elderberry and native associate plantings. The plan should seek to establish a diverse natural riparian community with a complex vegetation structure. Native associates should include a mix of woody trees, shrubs, and other natives appropriate for the site. Stock of either seedlings or cuttings should be obtained from local sources. The number of elderberry and native associate plantings should be based on the desired distribution and density outcome proposed in the planting plan. The Service encourages planting plans that promote spatial and structural diversity within the mitigation site. We recommend planting plans be designed to meet the following goals:

1. Maximize the number of stems between 2 (0.8 inches) and 12 centimeters (4.7 inches). Talley et al. (2007) found stems within this size range had the largest proportion of VELB exit holes.
2. Minimize competition for sunlight and water. Native associates, particularly trees, can influence the long-term success of the mitigation site. Native associates should be planted at a ratio of 1 native associate for every 3 elderberry plants to avoid competition for sunlight and water with the elderberry plantings.
3. Achieve an average elderberry stem density of 240 stems/acre. This was the average stem density Vaghti et al. (2009) found for elderberry shrubs along the major river systems within the VELB range. The Service and lead agency or applicant should assess this goal after 5 years.

Buffer. A buffer area may be needed between the mitigation site and adjacent lands, depending on adjacent land-use. An appropriate buffer distance can be developed in coordination with the Service when proposing compensation. Although the buffer would be considered part of the mitigation site, the acreage of the buffer may not be considered compensation.

Success Standards. We recommend that the site management plan and/or planting plan specify timelines for achievement of the success standards for the site, as stated below. These timelines should reflect the impacts that the site is intended to compensate for, the specific abiotic factors at the site that could influence establishment, or any credit release criteria that need to be met. Standards for VELB mitigation banks can be found in Appendix C. These standards were developed specifically for mitigation banks, but can be broadly applied to all compensatory mitigation for VELB. Some of the timelines described in the standards may not be applicable in all situations, but agencies and applicants should work with the Service to develop success standards that best meet the goals of their individual compensatory mitigation proposal. We suggest that all compensatory mitigation meet the following:

1. A minimum of 60% of the initial elderberry and native associate plantings must survive over the first 5 years after the site is established. As much as feasible, shrubs should be well distributed throughout the site; however, in some instances underlying geologic or hydrologic issues might preclude elderberry establishment over some portion of the site. If significant die back occurs within the first 3 years, replanting may be used to meet the 60% survival criteria. However, replanting efforts should be concentrated to areas containing surviving elderberry plants. In some instances overplanting may be used to offset the selection of a less suitable site.
2. After 5 years, the site must show signs of recruitment. A successful site should have evidence of new growth on existing plantings as well as natural recruitment of elderberry. New growth is characterized as stems < 3 cm (1.2 inches) in diameter. If

no signs of recruitment are observed, the agency or applicant should discuss possible remedies with the Service.

Monitoring. Specific monitoring protocols and reporting timelines for the mitigation site should be developed in coordination with the Service. The population of VELB, the general condition of the mitigation site, and the condition of the elderberry and associated native plantings in the mitigation site should be monitored at appropriate intervals. In any survey year, a minimum of two site visits between February 14 and June 30 of each year must be conducted by a Service-approved biologist. Surveys must include:

1. A search for VELB exit holes in elderberry stems, noting the precise locations and estimated ages of the exit holes. The location of shrubs with exit holes should be mapped with a GPS. Because adult VELB are rarely encountered, targeted surveys for adults are not required. However, surveyors should record all adult VELB seen. Record photographs should be taken for all observations of adult VELB and their location mapped with a GPS. All exit hole or adult VELB observations should be reported to CNDDDB.
2. An evaluation of the success standards outlined above.
3. An evaluation of the adequacy of the site protection (fencing, signage, etc.) and weed control efforts in the mitigation site. Dense weeds and grasses such as Bermuda grass (*Cynodon dactylon*) are known to depress elderberry recruitment and their presence should be controlled to the greatest extent practicable.
4. An assessment of any real or potential threats to VELB and its host plant, such as erosion, fire, excessive grazing, off-road vehicle use, vandalism, and excessive weed growth.
5. A minimum of 10 permanent photographic monitoring locations should be established to document conditions present at the mitigation site. Photographs should be included in each report.

Reports. A reporting timeline should also be developed during the development of monitoring protocols for the mitigation site. Reports submitted to the Service should present and analyze the data collected from the monitoring surveys. Copies of original field notes, raw data, photographs, and a vicinity map of the site (including any adult VELB sightings and/or exit hole observations) of the mitigation site must be included with the report. Copies of the report (including any applicable Service file number) must be submitted within 6 months of the survey to the Service (Field Supervisor) at the following address:

U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, CA 95825.

7.0 Other Activities

The Framework may not be applicable for restoration, floodway maintenance, and other large scale habitat modification activities. These activities and the potential effects to VELB and its habitat should be considered on a project-by-project basis and discussed with the Service. We recommend that project proponents consider the effects to the species on a landscape level and ultimately seek to protect, preserve, and restore the continuity of VELB habitat. These and similar activities that may adversely impact the VELB and its habitat at landscape scales should consider avoidance, minimization, and compensation strategies that are appropriate for the specific project.

Compensation may not be appropriate for those projects that impact only individual elderberry shrubs or result in a net benefit to VELB. Some possible conservation measures to consider for these large scale projects include:

1. Transplanting all affected elderberries to a similar on-site location.
2. Maintaining patches of appropriate habitat in areas where large-scale removal of elderberry shrubs will occur.
3. Scale trimming, removal, and other activities that allow VELB to persist within the area.

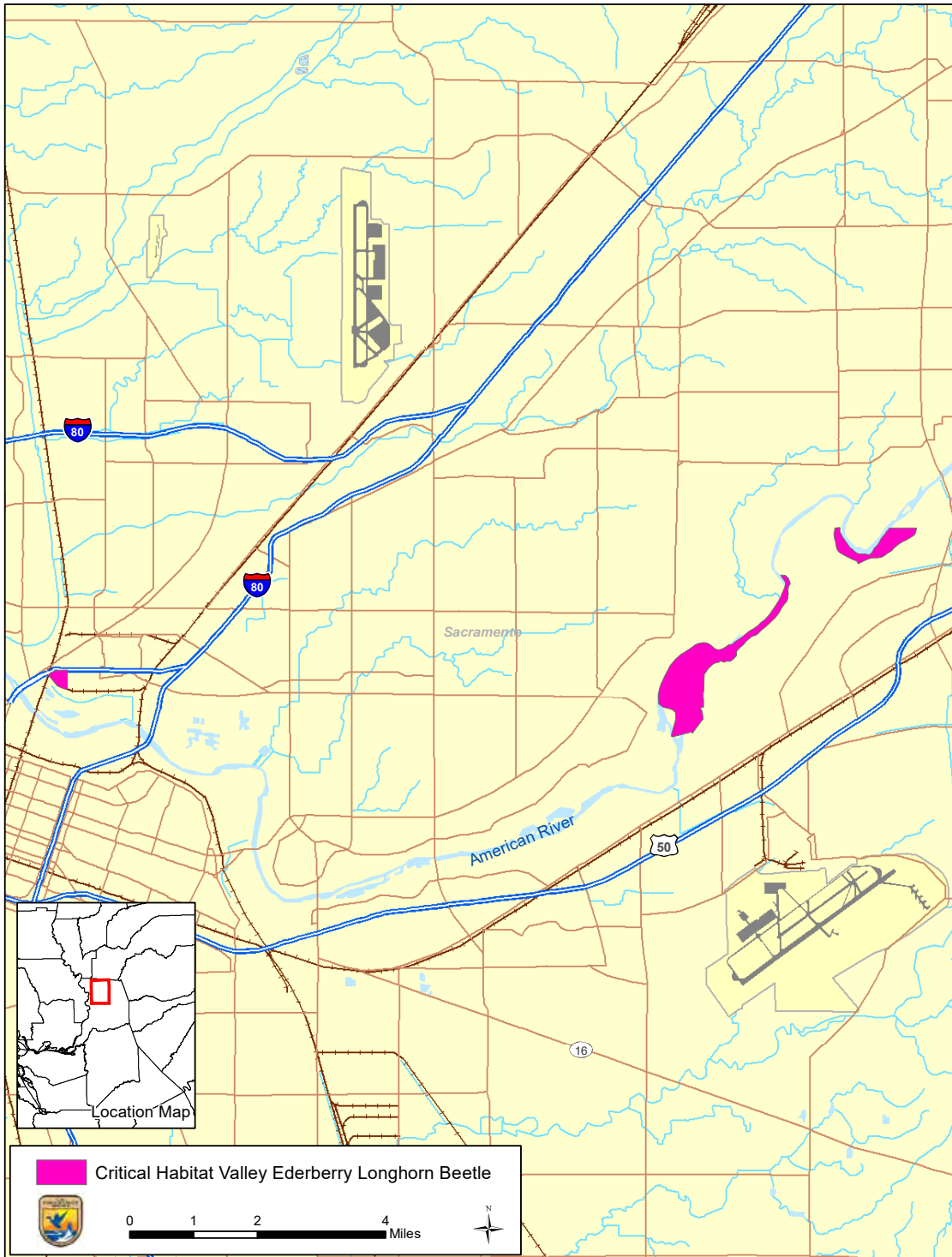
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Appendix A. Valley Elderberry Longhorn Beetle Critical Habitat



Appendix B. Compensation Examples

#1. An applicant is proposing to repair a bridge over Putah Creek. The project will require excavation within the channel and a re-contour of approaches to the new bridge. Pre-construction surveys noted that 3 elderberry shrubs in riparian habitat were within the project area, 2 of these shrubs will be directly impacted by the excavation work. The third shrub will be avoided using the appropriate avoidance and minimization measures. During the project, 0.5 acre of riparian habitat will need to be removed. The applicant has proposed to transplant the 2 directly affected elderberry shrubs to a Service-approved conservation bank and purchase 1.5 acres of credits at the conservation bank.

Conclusion: The project contains 3 elderberry shrubs on or within 50m of the project area. The project will result in the fragmentation of riparian habitat through the loss of 0.5 acres of riparian habitat. The compensation of 3:1 is appropriate for this project because it will be removing riparian habitat. The transplanting of the shrubs is appropriate because they would be directly impacted by the project.

#2. A new bike path will be constructed through an oak woodland/elderberry savanna. Pre-construction surveys identified one elderberry shrub within 0.10 acre of oak woodland/elderberry savanna that will be adversely affected by the proposed action. Exit holes were found on the elderberry shrub. The applicant also identified a conservation area that is suitable for oak woodland/elderberry savanna. Associated natives adjacent to the conservation area are blue oak (*Q. douglasii*), interior live oak, sycamore, poison oak, and wild grape. The applicant and the Service have agreed that transplanting the elderberry shrub into the conservation area and planting the conservation area with non-riparian habitat at a 1:1 ratio is appropriate to off-set the impacts to the VELB from the construction of this project.

Conclusion: The project contains 1 elderberry shrub on or within 50m of the project area. The project will result in the loss of 0.10 acre of non-riparian, elderberry savanna habitat. The proposed compensation of planting the identified conservation area at a 1:1 ratio using the species listed above is appropriate for the project since it will be removing non-riparian habitat. The transplanting of the one shrub into the conservation area is appropriate because it will be directly impacted by the project and the presence of exit holes suggests it was recently occupied by VELB.

The total area required for the conservation plantings are a minimum of 1,800 sq. ft. for one to five elderberry seedlings and up to 5 associated natives. A total of 0.10 acre ($1 \times 0.10 = 0.10$ acre = 4,356 square feet) will be required for the plantings. The conservation area will be seeded and planted with native grasses and forbs, and closely monitored and maintained throughout the monitoring period (see Section 5).

#3. Construction of a cell tower will require the removal of two isolated elderberry shrubs and the temporary loss of a minimal amount of grassland habitat. The project location is 3 miles east of the Feather River. The project site is not near a water course or any other shrubs within 800m. The shrubs were surveyed and do not exhibit exit holes.

Conclusion: The project area contains two non-riparian shrubs on or within 50m of the project area. Since both shrubs lack exit holes, other factors need to be considered to determine the likeliness of occupancy. A review of occurrence data reveals there are no known VELB occurrences within 800m of the project site and historical imagery shows the project site has never been a part of, or connected to, riparian habitat. Based on the specifics of this scenario, the two elderberry shrubs within the project area are not likely to be occupied..

Appendix C. VELB Mitigation Bank Standards

The following was prepared by Sacramento Fish and Wildlife Office conservation banking staff as part of an effort to standardize and make transparent the process for establishing Valley Elderberry Longhorn Beetle (VELB) conservation banks. The credit release schedule and performance standards are intended to be practical, while promoting the success of the plantings. This document is not a comprehensive review of VELB literature, and is subject to revision.

Credit Release Schedule

The credit release schedule and performance standards are designed to ensure that the VELB conservation bank plantings will be self-sustaining after the irrigation is turned-off (before the start of year 5), so the credit release schedule is longer than it would be without irrigation, and credits will not be released prior to the year indicated. Credits will be released per the following schedule, slightly modified from the May 2008 Statewide Banking Template:

Table 1. Credit release schedule.

Credit Release	Action	Credits to be Released
1	Bank Establishment	15%
2	Service Acceptance of As-builts*	25%
3	Meet Year 2 Performance Standards, and endowment funded 15%	15%
4	Meet Year 3 Performance Standards, and endowment funded 40%	15%
5	Meet Year 5 Performance Standards, and endowment funded 70%	15%
6	Meet Year 7 Performance Standards, and endowment funded 100%	15%

*Review to be accomplished within 60 days of receipt of complete as-built drawings.

Note: endowment can be funded on an accelerated schedule, if the bank sponsor so desires.

Performance Standards

Performance standards apply to the credit releases upon the third release. If the elderberry population is too large for direct census, then sampling methods may be used, and they must be thoroughly described in the proposed bank's development and management plans, and will be subject to Service approval. Sample size must be adequate to assess the health of the population, as determined by a qualified plant ecologist¹. Qualifications should be submitted with proposal.

Performance standards are based on survival without re-planting, and on baseline conditions of health and vigor of the elderberry plantings. If performance standards are not met, then the bank sponsor will meet with the Service to determine a course of action.

Table 2. Performance Standards.

Credit Release #	Monitoring Year	Performance Standards
3	Year 2	<ul style="list-style-type: none"> • 60% survival of original planted elderberries without re-planting², and all survivors categorized as “normal”³ to “exceptionally vigorous”³ • 60% survival of associates without re-planting² • Irrigation ok
4	Year 3	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting², and all survivors categorized as “normal”³ to “exceptionally vigorous”³ • Maintain 60% survival of associates without re-planting² • Irrigation ok
5	Year 5	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting² • Maintain 60% survival of associates without re-planting² • No more than 10% decline in overall health of <i>Sambucus</i> from baseline conditions⁴ • No irrigation⁵ • Fertilizer application prohibited
6	Year 7	<ul style="list-style-type: none"> • Maintain 60% survival of original planted elderberries without re-planting² • Maintain 60% survival of associates without re-planting² • No more than 10% decline in overall health of <i>Sambucus</i> from baseline conditions⁴ • No irrigation⁵ • Fertilizer application prohibited

¹Qualified plant ecologist is defined as a person who:

- a) holds a bachelor’s degree or higher in botany, plant ecology or related plant science, or demonstrates experience equivalent to such education, and
- b) shows demonstrated expertise in ecological sampling/experimental design beyond obtaining an academic degree, and
- c) has 2+ years experience in collecting and analyzing botanical field data beyond obtaining an academic degree

²If re-planting, then time-clock begins again, with no additional credit releases until performance standards for the monitoring year in which the re-planting occurred has been met. Re-planting must be approved by the Service in advance.

³See Vigor and Vitality, below.

⁴Years 2, 3 and 4 are used to establish the baseline condition. See Baseline Conditions, below.

⁵If irrigation continues beyond the end of monitoring year 4, credit release #'s 5 and 6 will be delayed beyond the years indicated in Table 2.

Vigor and Vitality

Observations made by a qualified plant ecologist during the late spring/early summer will be used to determine the vigor and vitality of surviving shrubs for the year 2 and 3 performance standards, and photographs should clearly document this. The following scale will be used (from Mueller-Dombois and Ellenberg, 1974):

- Very feeble, never flowering/fruitle
- Feeble
- Normal
- Exceptionally vigorous

Baseline Conditions

Observations made by a qualified plant ecologist during late spring/early summer will be used to determine the baseline conditions of the planted elderberries. Sampling is allowable where the population of planted elderberries is extensive, and must be thoroughly described in the bank's development and management plans. The following measurements will be used to determine baseline conditions (Elzinga, et. al., 1998):

- Height
- # of inflorescences per shrub
- # of stems per shrub
- # of stems over 1" diameter per shrub
- Volume of plant (height x cover)

These measurements will be averaged for surviving shrubs over years 2, 3 and 4. Condition of the planted elderberries in years 5 and 7 will be compared to the baseline. Photographs should clearly document the baseline condition.

Monitoring Reports

Monitoring reports will be required during the establishment period for years 2-7, and should clearly document the progress of the plantings. All surveys must be thoroughly described, and copies of any field notes or data sheets from the current year included. Photographic documentation of elderberry and associate condition during the field surveys is required, and should clearly show the condition of all shrubs sampled. If sampling, describe sampling design. Each report should be comprehensive, and include data summaries and other pertinent information from previous monitoring years.

Requirements for long-term monitoring and reporting, including due dates, should be discussed in the bank's development and management plans.

References for Appendix C

- Elzinga, Caryl L., D. W. Salzer, and J. W. Willoughby. 1998. Measuring and Monitoring Plant Populations. BLM Technical Reference 1730-1.
- Gilbart, Meghan. 2009. The health of blue elderberry (*Sambucus mexicana*) and colonization by the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) in restored riparian habitat. Master's Thesis, California State University, Chico.
- Mueller-Dombois, Dieter and H. Ellenberg. 1974. Aims and methods of vegetation ecology. John Wiley and Sons, Inc.

EXHIBIT F

Permits & Ordinances - City of Sacramento

When is a TREE Permit Needed?

A permit is required to perform regulated work on “City Trees” or “Private Protected Trees” (which includes trees formerly referred to as “*Heritage Trees*”). City trees are characterized as trees partially or completely located in a City park, on City owned property, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip or alley. Private protected trees are defined as trees designated to have special historical value, special environmental value, or significant community benefit, and is located on private property. Private protected trees are:

- All native trees at 12 inch DSH*. Native trees include: Coast, Interior, Valley and Blue Oaks, CA Sycamore and Buckeye.
- All trees at 32 inch DSH with an existing single family or duplex dwelling.
- All trees at 24 inch DSH on undeveloped land or any other type of property such as commercial, industrial, and apartments.

* DSH = *Diameter Standard Height*. [Learn how to measure a tree's DSH](#).

Approved permits are required before work can be performed. If you plan to perform work on a City or private protected tree, download the [Tree Permit Application \(pdf\)](#). Once received by the Urban Forestry office, permit applications are generally processed within ten (10) business days. This time frame can vary based on the nature of the request and volume of requests received at any given time.

Selecting a Tree Care Professional

The City performs regulated work on City trees only. Tree maintenance for private trees should be provided by trained tree care professionals. When choosing a tree care professional, the following should be considered:

- Membership with a professional organization such as the International Society of Arboriculture (ISA), the Tree Care Industry Association (TCIA), or the Society of Consulting Arborists (ASCA)
- Certification through the ISA's Certified Arborist or Tree Worker programs
- Competitive pricing (three bids)
- Proof of Insurance
- List of references

Sacramento City Ordinances

- [SCC 12.56 – Trees Generally **](#)
- [Water Conserving Landscape Ordinance \(pdf\)](#)

**Sacramento City Code 12.56 was amended and adopted by Sacramento City Council on August 4, 2016. The new tree ordinance amends section 2.62.030 & 8.04.100, and

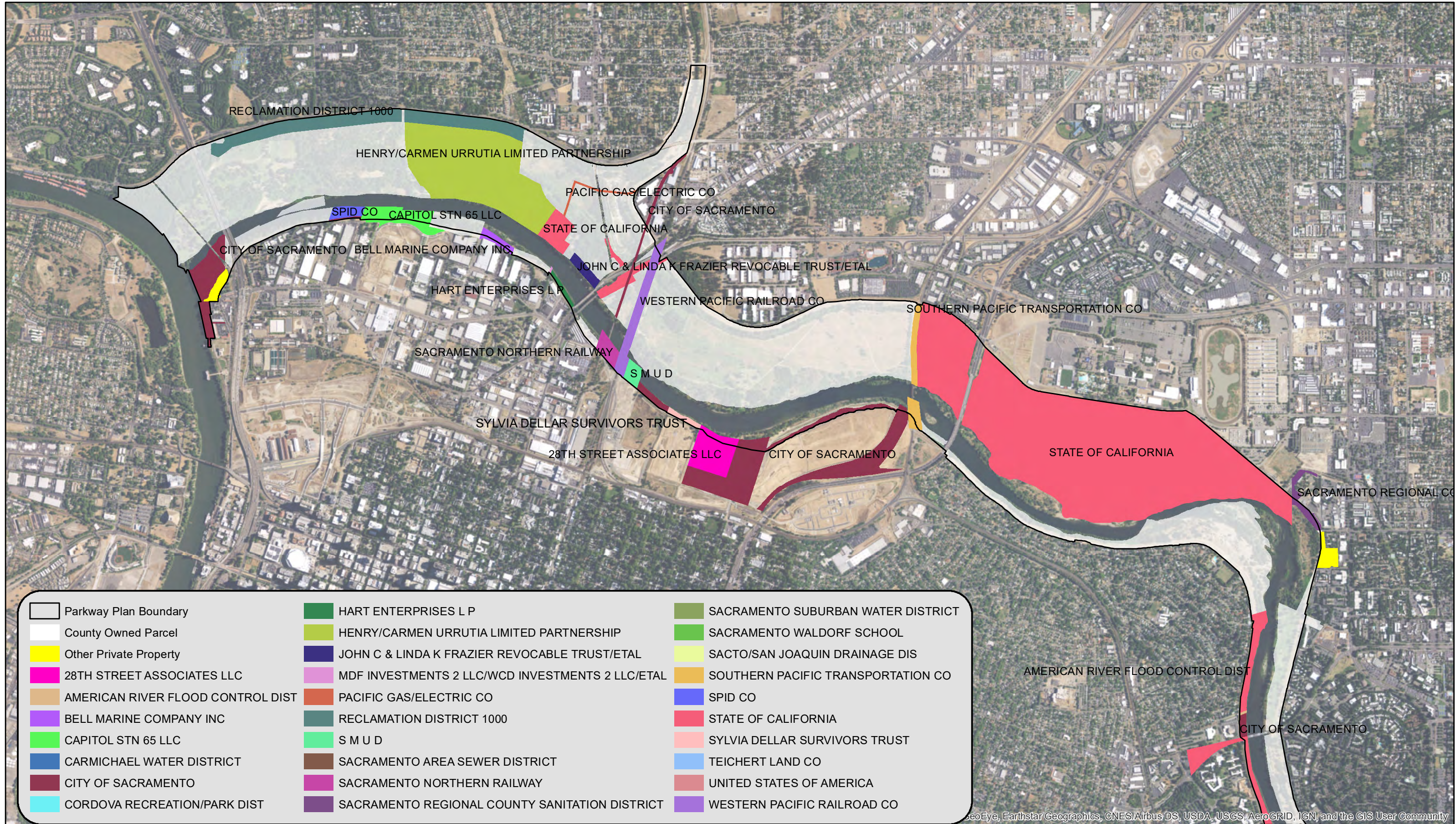
deletes chapter 12.60 & 12.64 of the Sacramento City Code, related to trees.

PARKING LOT SHADE DESIGN GUIDELINES

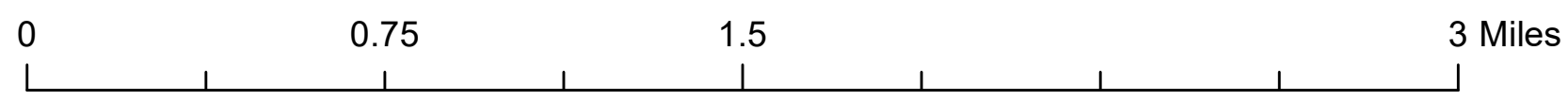
With a few exceptions, chapter 17.612.040 requires that trees be planted and maintained in order to provide a minimum of 50% shade over a parking lot. Planting, soil volumes and maintenance must comply with the [City's Parking Lot Shading Design and Maintenance Guidelines \(pdf\)](#).

EXHIBIT G

American River Parkway County Parcels and Inholdings (11/3/2017)

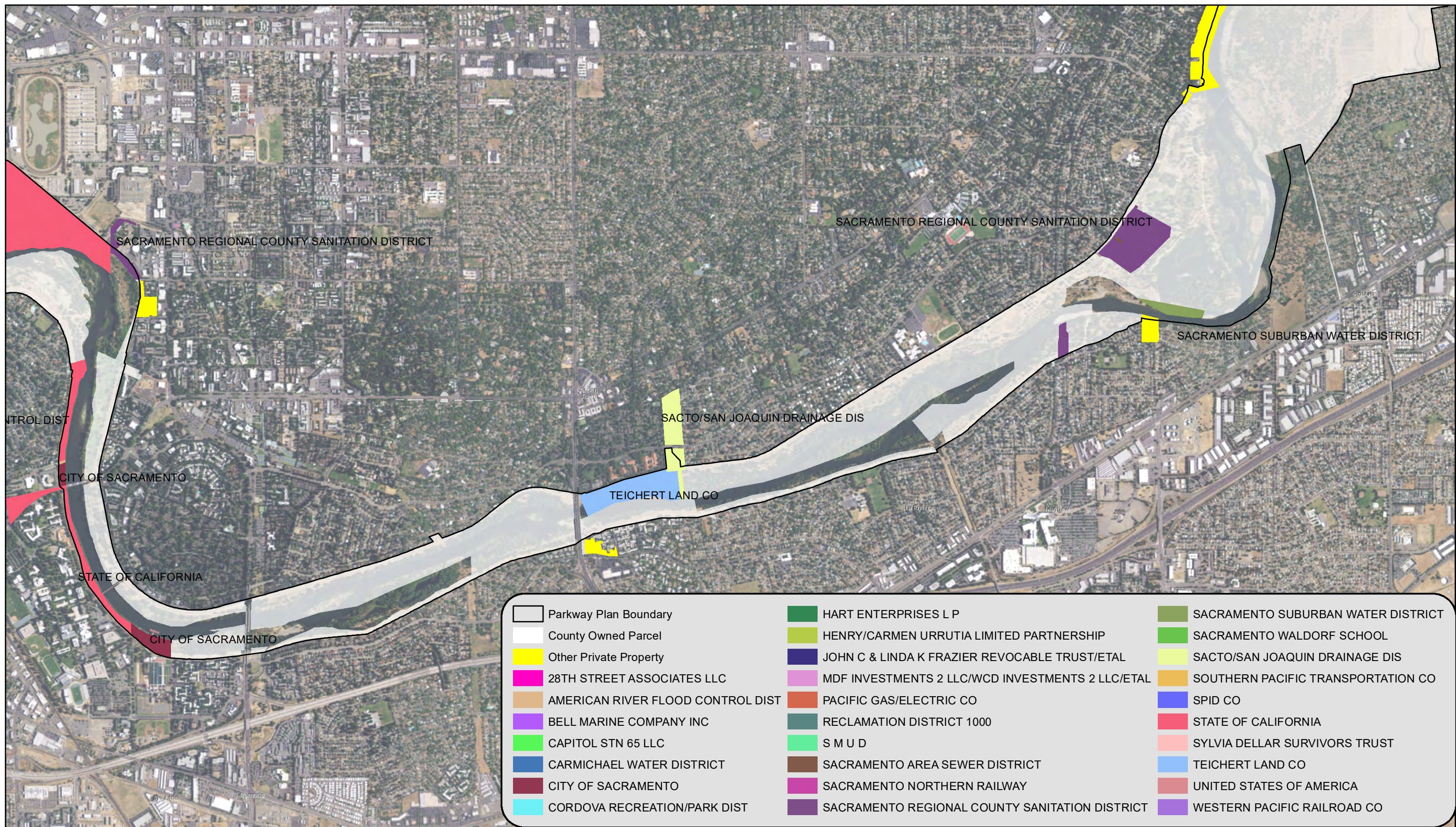


Parkway Plan Boundary	HART ENTERPRISES L P	SACRAMENTO SUBURBAN WATER DISTRICT
County Owned Parcel	HENRY/CARMEN URRUTIA LIMITED PARTNERSHIP	SACRAMENTO WALDORF SCHOOL
Other Private Property	JOHN C & LINDA K FRAZIER REVOCABLE TRUST/ETAL	SACTO/SAN JOAQUIN DRAINAGE DIS
28TH STREET ASSOCIATES LLC	MDF INVESTMENTS 2 LLC/WCD INVESTMENTS 2 LLC/ETAL	SOUTHERN PACIFIC TRANSPORTATION CO
AMERICAN RIVER FLOOD CONTROL DIST	PACIFIC GAS/ELECTRIC CO	SPID CO
BELL MARINE COMPANY INC	RECLAMATION DISTRICT 1000	STATE OF CALIFORNIA
CAPITOL STN 65 LLC	S M U D	SYLVIA DELLAR SURVIVORS TRUST
CARMICHAEL WATER DISTRICT	SACRAMENTO AREA SEWER DISTRICT	TEICHERT LAND CO
CITY OF SACRAMENTO	SACRAMENTO NORTHERN RAILWAY	UNITED STATES OF AMERICA
CORDOVA RECREATION/PARK DIST	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	WESTERN PACIFIC RAILROAD CO

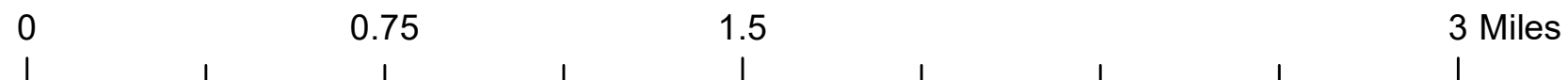


GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

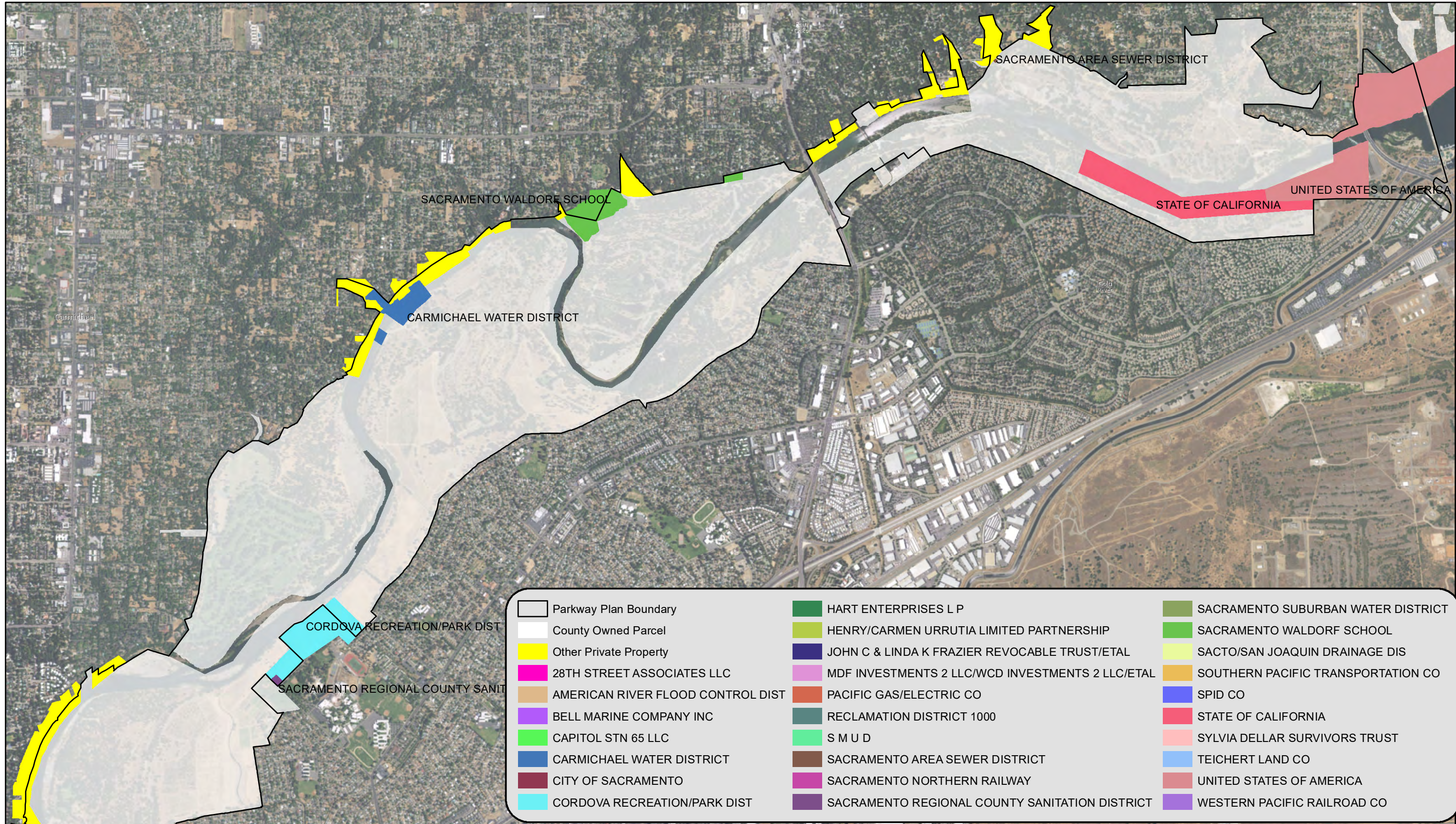
American River Parkway County Parcels and Inholdings (11/3/2017)



Parkway Plan Boundary	HART ENTERPRISES L P	SACRAMENTO SUBURBAN WATER DISTRICT
County Owned Parcel	HENRY/CARMEN URRUTIA LIMITED PARTNERSHIP	SACRAMENTO WALDORF SCHOOL
Other Private Property	JOHN C & LINDA K FRAZIER REVOCABLE TRUST/ETAL	SACTO/SAN JOAQUIN DRAINAGE DIS
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AMERICAN RIVER FLOOD CONTROL DIST	PACIFIC GAS/ELECTRIC CO	SPID CO
BELL MARINE COMPANY INC	RECLAMATION DISTRICT 1000	STATE OF CALIFORNIA
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American River Parkway County Parcels and Inholdings (11/3/2017)



Parkway Plan Boundary	HART ENTERPRISES L P	SACRAMENTO SUBURBAN WATER DISTRICT
County Owned Parcel	HENRY/CARMEN URRUTIA LIMITED PARTNERSHIP	SACRAMENTO WALDORF SCHOOL
Other Private Property	JOHN C & LINDA K FRAZIER REVOCABLE TRUST/ETAL	SACTO/SAN JOAQUIN DRAINAGE DIS
28TH STREET ASSOCIATES LLC	MDF INVESTMENTS 2 LLC/WCD INVESTMENTS 2 LLC/ETAL	SOUTHERN PACIFIC TRANSPORTATION CO
AMERICAN RIVER FLOOD CONTROL DIST	PACIFIC GAS/ELECTRIC CO	SPID CO
BELL MARINE COMPANY INC	RECLAMATION DISTRICT 1000	STATE OF CALIFORNIA
CAPITOL STN 65 LLC	S M U D	SYLVIA DELLAR SURVIVORS TRUST
CARMICHAEL WATER DISTRICT	SACRAMENTO AREA SEWER DISTRICT	TEICHERT LAND CO
CITY OF SACRAMENTO	SACRAMENTO NORTHERN RAILWAY	UNITED STATES OF AMERICA
CORDOVA RECREATION/PARK DIST	SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT	WESTERN PACIFIC RAILROAD CO

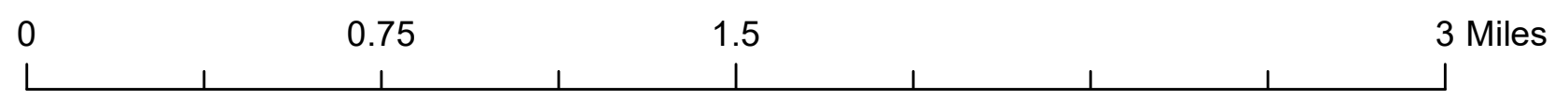


EXHIBIT H



REPORT TO COUNCIL

City of Sacramento

5

915 I Street, Sacramento, CA 95814-2604
www.CityofSacramento.org

CONSENT
January 9, 2007

Honorable Mayor and
Members of the City Council

Title: Change Order #1: Two Rivers Trail Phase I, CIP HB66

Location/Council District: American River Parkway's South Levee / Council District 1

Recommendation: Adopt a **Resolution:** 1) approving Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31; and 2) authorizing the City Manager to execute Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31.

Contact: J.P. Tindell, Interim Planning and Development Manager, 808-1955

Presenters: Not applicable

Department: Parks and Recreation

Division: Park Planning, Design & Development

Organization No: 4727

Description/Analysis

Issue: To complete construction for the Two Rivers Trail Phase I development, a change order must be approved as a result of an increase in the contract amount. However, Change Order #1, for \$365,415.31, exceeds 10% of the original contract price of \$653,329.00 (CO2006-236) and the City Manager's approval authority set forth in Sacramento City Code Section 3.60.210(B).

A summary of the project history is included as Attachment 1 (page 4) and a location map as Attachment 2 (page 5).

Policy Considerations: A change order must be approved as a result of an increase in contract price. However, Change Order #1 is in excess of the parameters set forth in Sacramento City Code Section 3.60.210 (B) and lies outside the City Manager's approval authority.

Providing parks and recreation facilities is also consistent with the City's strategic plan to enhance liveability in Sacramento's neighborhoods.

Committee/Commission Action: Not applicable. The Parks and Recreation Commission is periodically updated as to the status of construction projects.

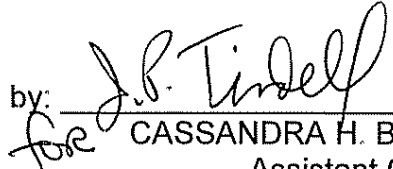
Environmental Considerations: The California Environmental Quality Act (CEQA) documentation, right-of-way engineering, and the survey work on Phase I is complete. On November 8, 2005, the Department Director approved the Negative Declaration for the development of Two Rivers Trail. The Environmental Services Manager determined that the action of approval of the paving construction for Phase I did not require further environmental evaluation, as it fell within the scope of the Negative Declaration. Mandatory mitigation measures, as specified in the Mitigation Monitoring Plan, were incorporated into the project plans to avoid identified impacts or to mitigate such impacts to a point where clearly no significant impacts could occur.

Rationale for Recommendation: Change Order #1 for the Two Rivers Trail Phase I project (Attachment 3, page 6) is necessary primarily to address the requirements from other agencies. The Geotechnical Engineer's report found that the existing soil used to construct the original levee did not meet the current Department of Water Resources or the American River Flood Control District's new specifications for levee fill material; the unsuitable soil needed to be disposed of off site and new material brought in to replace it. Staff recommends authorizing the City Manager to execute Change Order #1 in order to complete the Two Rivers Trail Phase I project.

Financial Considerations: Change Order #1 for Two Rivers Trail Phase I, CIP HB66, is in the amount of \$365,415.31. There are adequate funds in CIP HB66 to fund this change order.

Funding for this park was provided from a 2002 State of California grant (via Fund 248), General Funds (Fund 101), Railyards/Richards/ Downtown Impact Funds (Fund 782), and Transportation Development Funds (Fund 235).

Emerging Small Business Development (ESBD): The selection of Landscape Architect consultants and contractors for this project followed City established guidelines for inclusion of ESBD firms.

Respectfully Submitted by: 
for CASSANDRA H. B. JENNINGS
Assistant City Manager

Recommendation Approved:

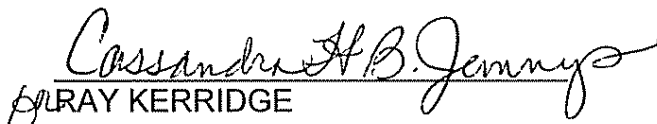

RAY KERRIDGE
City Manager

Table of Contents:

	Pg	1	Report
Attachments			
1	Pg	4	Background Information
2	Pg	5	Signage and On/Off Street Connections Two Rivers Trail Aerial Map
3	Pg	6	Change Order #1
4	Pg	7	Resolution

Attachment 1

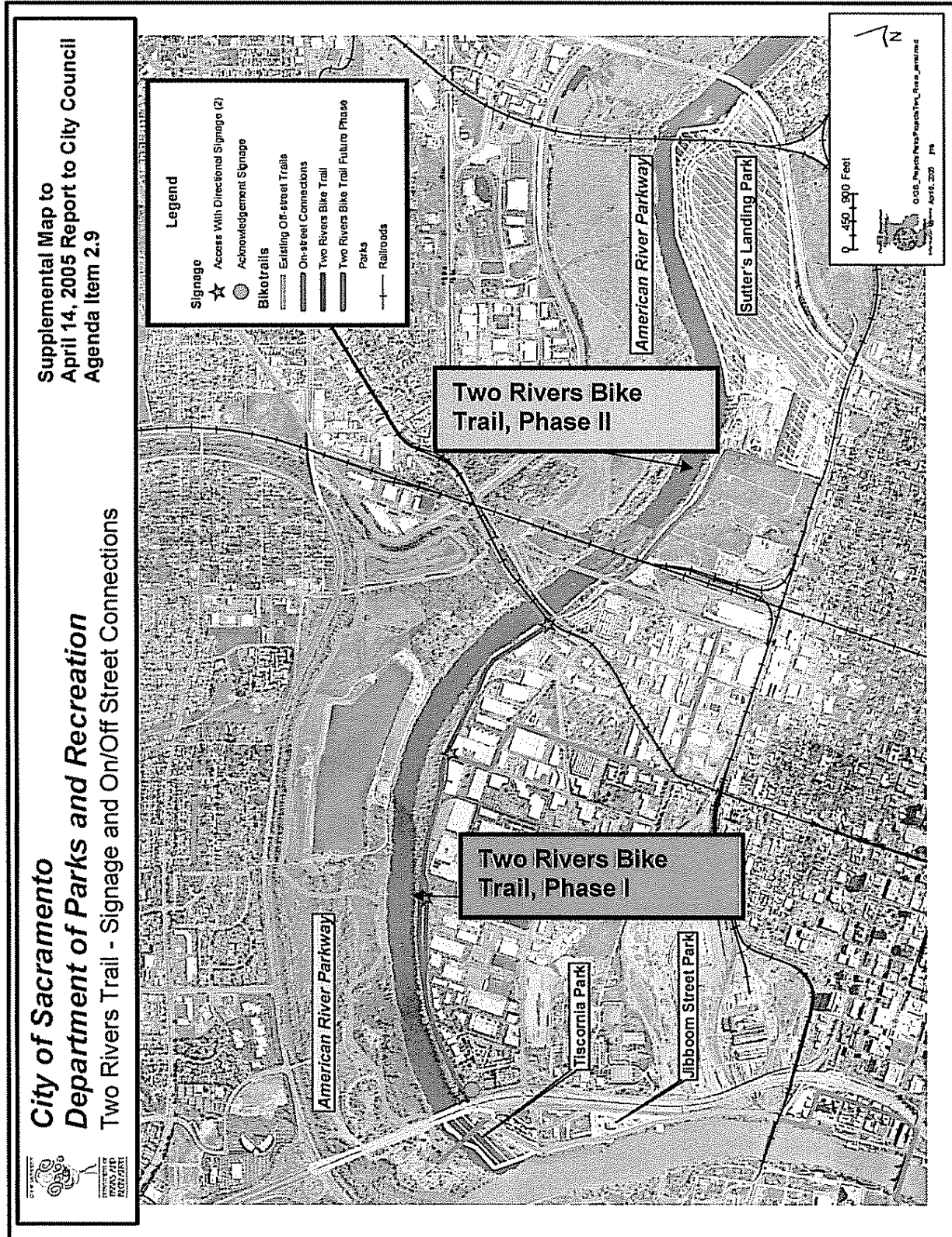
Background Information

The Two Rivers Trail project consists of two trail segments on the American River Parkway's South Levee that offer a connection from Tiscornia Park to Sutter's Landing Regional Park. This is planned as a Class I bike trail approximately 2.5 miles in length and located primarily on the crown of the American River's southern levee. Phase I of the trail is approximately 1.75 miles and runs from Tiscornia Park to Highway 160.

This trail is an important element of the redevelopment in the River District area and will also connect the Sacramento River Parkway to the American River Parkway, increasing alternative transportation access to downtown employment and economic centers.

The County of Sacramento owns parcels in-fee and recreation easements along much of the alignment of Phase I of the Two Rivers Trail; the County of Sacramento has agreed to let the City of Sacramento use its real estate interests through a use agreement and a lease agreement. The agreements with the County of Sacramento will allow the trail and parkway to continue development.

All property interests necessary for completion of the Two Rivers Trail were acquired.



Attachment 3

**TWO RIVERS BICYCLE / PEDESTRIAN TRAIL
HB66**

11/20/06

Description	Amount
Change Order #1	
PCO# 1.0 One Thousand Nine Hundred Sixty Point Two (1,960.2) CY of Export Material	61,746.30
Four Thousand Six Hundred and Ninety Point Four (4,690.4) CY of Import Fill	234,520.00
Installation of One Hundred Sixty-Seven Point Forty Seven (167.47) TN of Three Fourth (3/4) IN Asphalt Concrete	15,072.30
Installation of Six Hundred and Twenty Nine (629) TN of Three Fourth (3/4) IN Aggregated Base	49,062.00
Installation of Five Hundred Fifteen Point Sixty-Five (515.65) LF of Thermoplastic Stripe	448.62
Installation of Sixty-Seven (67) LF of Retaining Wall	15,276.00
Regrade for Fifteen (15) FT Clearance Under the I-5 Overpass on West and East Sides of Overpass	2,120.16
Removal of Vertical Shoulder on NW Corner of Entrance on Jibboom Street & I-5 and Regrade Shoulder and Replace with Cobble Stone	5,279.25
Installation of Cobble Stones on Shoulder of Trail and Access Road.	1,086.40
Demolition and Removal of Existing Asphalt and Concrete. Sub-Grade at the Point of Connection from Ramp to North 10 th Street.	1,288.78
PCO# 2.0 Deletion of Line Items on Base Bid as	
a. #7 – Ninety-Seven (97) SF of Three Point Five (3.5) IN Concrete Flatwork and Driveway to Place	(-3,637.50)
b. #10 – Seven (7) EA of Bollards to Place	(-2,149.00)
c. #11 – Two (2) LF of Chain Link Fence Six (6) FT High to Install	(-110.00)
d. #14 – Fourteen (14) EA of Install Signs Furnished by the City	(-3,500.00)
e. #16 – Nine (9) LF of Curb and Gutter	(-297.00)
f. #17 – Five Hundred and Twenty-Nine (529) SY of Chipseal to Place	(-4,761.00)
g. #20 – Forty Point Forty –Seven (40.47) TN Rubber Asphalt Concrete Top Course (Type A, One Half (1/2) IN Max. Med.)	(-6,030.00)
Total Change Order #1	\$365,415.31

RESOLUTION NO. 2007-

Adopted by the Sacramento City Council

January 9, 2007

APPROVING CHANGE ORDER #1: TWO RIVERS TRAIL PHASE I, CIP HB66

BACKGROUND

- A. The Two Rivers Trail is an important part of a regional trail system that offers both recreation and commuter opportunities. Two Rivers Trail runs primarily on the crown of the American River's southern levee from Tiscornia Park to the Sutter's Landing Regional Park; Phase I runs from Tiscornia Park to Highway 160.
- B. On July 18, 2006, a construction contract in the amount of \$653,329.00 was awarded to Biondi Paving for the construction of the Two Rivers Trail.
- C. To complete construction of Two Rivers Trail, a change order must be approved as a result of an increase in the contract amount by \$365,415.31. However, the change order is in excess of the parameters set forth in City Code Section 3.60.210 (B) and lies outside the City Manager's approval authority.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31 is approved.
- Section 2. The City Manager is authorized to execute Change Order #1 for Two Rivers Trail Phase I, CIP HB66, in the amount of \$365,415.31.

EXHIBIT I



Bank Protection Working Group

LAR Task Force Update

March 13, 2018



Presentation Outline

- **BPWG Status**
- **3 Tiered Approach to Site Designations**
 - Associated Parkway Resource Analysis
- **Paradise Bend to Howe Avenue Preliminary Results**
- **Next Steps**



BPWG Update

- **The Technical Advisory Committee continues to meet regularly, nearing segment recommendations for Paradise Bend to Howe Avenue Reach**
- **BPWG continues to meet bi-monthly (April 17 next)**
- **Technical analysis of Howe Avenue to Watt Avenue Reach is underway**
- **Upstream of Watt Avenue Reach and downstream of Paradise Bend Reach will follow**

Tiered Bank Protection Site Assessment: Risk and Resources

■ **3 Tiered Approach:**

- Tier 1: Need to fix now – immediate threat of failure with 160,000 cfs flows
- Tier 2: Future fix needed – significant erosion loss is expected in the future
- Tier 3: Protection not warranted due to very wide berm or lack of erosion risk

Expansion of Tier 2 Assessment

- Tier 2a: significant erosion loss is expected in the future, berm/resources **should be protected**
- Tier 2b: erosion loss is expected in the future, **protection not warranted**



Key Questions for Consideration

- What types of resources are at risk from erosion?
- What types of resources could be **impacted by** bank protection projects?
- What types of resources could be **protected by** bank protection projects?

Parkway Resource Analysis

- **Infrastructure**

- Roads, bridges, electric transmission towers, sewer lines, etc...

- **Natural Resources**

- Riparian vegetation, instream woody material, natural bank, etc

- **Recreational**

- Bicycle trails, equestrian trails, access points, boat launches, golf courses, etc...

- **Considering Existing and Potential**



Parkway Resource Analysis Process

- **Compiling existing data**
- **Collecting new data**
- **Also planning fish monitoring**
 - Intended to observe and record actual fish use
 - May include:
 - Habitat assessments
 - Snorkel surveys
 - Video surveys

Paradise Bend to Howe Avenue Reach – Preliminary Results



Preliminary Results – Paradise Bend to Howe Avenue

- **TAC evaluation process is still underway**
- **Preliminary results indicate 6 potential Tier 1 segments**
- **TAC is expected to finalize their recommendation and discuss conceptual level designs at their meeting later this month**



Preliminary Tier 1 Segments – Paradise Bend to Howe Avenue



Next Steps

- **TAC to finalize Paradise Bend – Howe Avenue Reach recommendation to BPWG**
- **TAC to work on remaining reaches, beginning with Howe to Watt Avenues**
- **TAC/BPWG to incorporate Parkway resource analysis into Tiered Assessment**
- **Results of Tiered Assessments to come back to Task Force throughout 2018**

EXHIBIT J

Microbes and Urban Watersheds: Concentrations, Sources, & Pathways

Microbes are problematic. They are small and include hundreds of groups, species, biotypes and strains. They are ubiquitous in the environment, found on nearly every surface of the earth. They exist within us, on us, on plants, soils and in surface waters. They grow rapidly, die off, survive or multiply depending on a changing set of environmental conditions. Some microbes are beneficial to humans, while others exert no impact at all. Other microbes cause illness or disease, and a few can even kill you.

The presence of some types of microbes indicates a potential risk for water contamination, while other microbes are pathogens themselves (i.e., they are known to cause disease). Microbes are nearly always present in high concentrations in stormwater, but are notoriously variable. They are produced from a variety of watershed sources, such as sewer lines, septic systems, livestock, wildlife, waterfowl, pets, soils and plants, and even the urban stormdrain system itself.

It is little wonder that many watershed managers are thoroughly confused by the microbial world. This article seeks to provide enough background to help a watershed manager assess bacteria problems. It contains a national review and analysis of microbial concentrations, sources, and pathways in urban watersheds. The major focus is on fecal coliform bacteria, for which the most urban watershed data is available, but reference is also made to protozoa, such as *Cryptosporidium* and *Giardia*.

The article begins with a field guide to the bacteria found in urban waters. It compares the frequency of detection, origin, indicator status and measurement units of different microbes. The next section presents a national assessment of bacteria levels in urban stormwater. The last section profiles the many different human and nonhuman bacteria sources that can potentially occur in an urban watershed.

Field Guide to the Microbes

The complex microbial world is confusing to most; therefore, it is worth a moment to understand some of the terminology used to describe it. The term *microbes* refers to a wide range of living organisms that are too small to see with the naked eye. *Bacteria* are very simple single celled organisms that can rapidly reproduce by binary fission. Of particular interest are *coliform*

bacteria, typically found within the digestive systems of warm-blooded animals. The coliform family of bacteria includes total coliforms, fecal coliforms and the group *Escherichia coli* (*E. coli*). Each of these can indicate the presence of fecal wastes in surface waters, and thus the possibility that other harmful bacteria, viruses and protozoa may be present. Fecal streptococci (a.k.a., *Enterococci*) are another bacteria group found in feces which, under the right conditions, can be used to determine if a waste is of human or nonhuman origin. As such, all coliform bacteria are only an *indicator* of a potential public health risk, and not an actual cause of disease.

A *pathogen* is a microbial species that is actually known to cause disease under the right conditions. Examples of bacterial pathogens frequently found in stormwater runoff include *Shigella spp.* (dysentery), *Salmonella spp.* (gastrointestinal illness) and *Pseudomonas auerognosa* (swimmer's itch). Some subspecies can cause cholera, typhoid fever and "staph" infections. The actual risk of contracting a disease from a pathogen depends on a host of factors, such as the method of exposure or transmission, pathogen concentration, incubation period and the age and health status of the infected party.

Protozoa are single-celled organisms that are motile. Two protozoans that are common pathogens in surface waters are *Giardia* and *Cryptosporidium*. To infect new hosts, these protozoans create hard casings known as cysts (*Giardia*) or oocysts (*Cryptosporidium*) that are shed in feces, and travel through surface waters in search of a new host. The cysts or oocysts are very durable and can remain viable for many months. The protozoan emerges from its hard casing if and when a suitable host is found.

Table 1 provides a general comparison of the many microbes found in urban stormwater runoff, in terms of their frequency of detection, origin, indicator status, measurement units and information use.

Public health authorities have traditionally used fecal coliform bacteria to indicate potential microbial risk, and to set water quality standards for drinking water, shellfish consumption or water contact recreation. Some typical fecal coliform standards are provided in Table 2. Fecal coliforms are an imperfect indicator and regulators continually debate whether other bacterial species or groups are better indicators

Microbial Indicator	Found in Urban Runoff?	Fecal Origin?	Non-Human Sources?	Indicator or Pathogen	Units of Measurement ^a	Information Use ^b
Total coliforms	All samples	Most	Animals, plants, soil	Neither	Counts per 100 ml	Historical, seldom used
Fecal coliforms	All samples	Most	Animals, plants, soil	Indicator	Counts per 100 ml	Water contact, shellfish, drinking water
Fecal streptococci	All samples	Yes	Warm-blooded animals	Indicator	Counts per 100 ml	Sometimes used to ID waste source ^c
<i>Escherichia coli</i>	Nearly all samples	Yes	Mammals, some found in soils	Indicator, some are pathogen	Counts per 100 ml	Water contact, shellfish, drinking water
<i>Salmonella spp.</i>	About half	Yes	Mammals (esp. dogs)	Pathogen	Counts per 10 ml	Food safety
<i>Pseudomonas aeruginosa</i>	All samples	Yes	Mammals	Pathogen	Counts per 100 ml	Drinking water
<i>Cryptosporidium spp.</i>	Less than half	Yes	Mammals (esp. livestock)	Pathogen	Oocysts per liter	Drinking water
<i>Giardia spp.</i>	Less than half	Yes	Mammals (esp. dogs and wildlife)	Pathogen	Cysts per liter	Drinking water

^a Research use many different terms and sampling methods to describe their bacterial counts, including MPN (most probable number), colony forming units (CFU), colonies, or organisms.

^b See Table 2 for a more thorough discussion on bacteria and protozoan standards.

^c It is important to note that fecal strep is a poor method for urban stormwater

of potential health problems and how low indicator levels must be to ensure “safe” water. The debate, however, remains largely academic, as over 90% of the states still rely of fecal coliform in whole or in part as their recreational water quality standards (USEPA, 1998).

Fecal Coliform Levels in Urban Stormwater Runoff

Coliforms are ubiquitous—about 20% of all water quality samples at U.S. Geological Survey’s main sampling stations across the country exceeded the 200 MPN/100 ml fecal coliform standard in the 1980s (Smith *et al.*, 1992) *Note: Most samples were conducted in dry weather conditions and in larger watersheds.* The highest fecal coliform levels were routinely collected in agricultural and urban watersheds. For-

ested and pastured watersheds had much lower fecal coliform levels (about 50 to 100 MPN per 100 ml).

The vast majority of urban stormwater monitoring efforts utilize fecal coliform as the primary microbial indicator. A small handful of researchers have measured other coliforms or other specific pathogens (e.g., *Salmonella*, *Pseudomonas*, etc.). Some caution should be exercised when evaluating storm concentrations of fecal coliforms, as most represent a “grab” sample rather than a true flow-composite sample. This, along with differences in how samples are counted and averaged, produces the notorious variability that is associated with stormwater fecal coliform data.

Pitt (1998) reports a mean fecal coliform concentration in stormwater runoff of about 20,000 colonies per 100 ml based on 1,600 storm runoff samples

Table 2: Typical Coliform Standards for Different Water Uses

Water use	Microbial Indicator	Typical Water standards
Water contact recreation	Fecal coliform	<200 MPN per 100 ml
Shellfish bed	Fecal coliform	<14 MPN per 100 ml
Drinking water supply	Fecal coliform	<20 MPN per 100 ml
Treated drinking water	Total coliform	No more than 1% coliform positive samples per month
Freshwater swimming	<i>E. coli</i>	<126 MPN per 100 ml
Marine swimming	<i>E. coli</i>	<35 MPN per 100 ml

Important Note: Individual state standards may employ different sampling methods, indicators, averaging periods, averaging methods, instantaneous maximums and seasonal limits. MPN=most probable number. Higher or lower limits may be prescribed for different water use classes. Please consult your state water quality agency or USEPA (1998) to determine bacteria standards used in your community.

largely collected during the Nationwide Urban Runoff Program (NURP) in the early 1980s. He also reports a nearly identical mean fecal coliform concentration of about 22,000 colonies per 100 ml that was derived from a second database containing 25 additional stormwater monitoring studies conducted since NURP.

The Center for Watershed Protection has recently developed a third database containing 34 more recent urban stormwater monitoring studies. An analysis of the Center database indicates a slightly lower mean concentration of fecal coliform in urban stormwater of about 15,000 per 100 ml. The Center fecal coliform database is profiled in Figure 1. Nearly every individual stormwater runoff sample in the database exceeded bacteria standards, usually by a factor of 75 to 100. Some indication of the enormous storm to storm variability in fecal coliform bacteria can be seen in Figure 1, with concentrations often spanning five orders of magnitude at the same sampling location. Other data for fecal streptococci and *E. coli* are provided in Figures 2 and 3.

Arid and semi-arid regions of the country often experience higher fecal coliform levels. For example, Chang (1999) computed a flow-weighted mean fecal coliform concentration of 77,970 MPN/100 ml in 21 small urban watersheds in Austin, Texas.

It should be noted that the most extreme bacteria concentrations in stormwater runoff from larger catchments (10^5 - 10^6) are usually associated with an inappropriate human discharge (e.g., failing septic system, sanitary sewer overflows or illicit connections) (Pitt, 1998).

Fecal coliform levels are generally much lower in stream baseflow than during storms, unless an inappropriate sewage discharge is present upstream (Gannon and Busse, 1989; USEPA, 1983). This is most evident at runoff monitoring stations at recently developed suburban watersheds that have few suspected sewage discharges. For example, Varner (1995) sampled fecal coliform samples at 11 stations in suburban catchments in the City of Bellevue, WA. Overall, the mean stormflow concentration of fecal coliforms (4,500 MPN/100 ml) was about nine times greater than mean baseflow concentrations (600 MPN/100 ml) for all stations.

Watershed managers should systematically assess dry weather flows from stormwater outfall pipes, however, before they conclude that dry weather bacteria concentrations are not a concern. In some communities, as many as 10% of all pipe outfalls have dry weather flow. Even if only a few of these flows contain sewage, they can produce very high bacteria concentrations during baseflow conditions.

Fecal coliform levels are about 90% lower in runoff that occurs in winter than during the summer months, although bacteria levels can increase sharply during snowmelt events (USEPA, 1983 and Figure 4). Researchers have occasionally correlated bacteria levels with factors such as rainfall, rainfall intensity, antecedent rainfall, turbidity and suspended solids within individual urban watersheds. Few of these relationships, however, appear to be transferable from one watershed to another. Other watershed variables that may better predict bacteria levels include population density (Glenn, 1984), age of development and percent residential development (Chang, 1999).

Unlike many pollutants, fecal coliforms do not appear to be directly related to subwatershed impervious cover. For example, Hydroqual (1996) evaluated fecal coliform concentrations for seven small subwatersheds of different impervious cover in the Kensico watershed, a small drinking water reservoir for New York City. Undeveloped subwatersheds with 4% impervious cover had fecal coliform concentrations well below the 200 MPN standard, whereas watersheds ranging from 20 to 65% imperviousness exceeded the standard handily (Figure 5). While developed watersheds nearly always had greater fecal coliform concentrations than undeveloped watersheds, more impervious cover in a developed watershed was not observed to increase fecal coliform concentrations.

Protozoan Levels in Urban Runoff

Until recently, the major sources of protozoa in surface waters were generally thought to be human sewage, dairy runoff and wildlife sources. The only study to date that has measured *Cryptosporidium* or *Giardia* in stormwater runoff found high levels of both protozoans (Stern *et al.*, 1996). David Stern and his colleagues monitored a series of agricultural and urban watersheds within the New York City water supply reservoir system, and found urban subwatersheds had slightly higher rates of *Giardia* and *Cryptosporidium* detection than agricultural subwatersheds, and a higher rate of confirmed viability (Table 3 and Stern *et al.*, 1996).

States *et al.* (1997) also found very high levels of *Cryptosporidium* and *Giardia* in storm samples collected from combined sewers in the Pittsburgh region (geometric means of 28,881 cysts/100 ml for *Giardia* and 2,013 oocysts/100 ml for *Cryptosporidium*) The protozoa were detected in virtually every sample collected from the combined sewer overflows. Sampling of protozoa is complicated by durability of their cysts and oocysts in the environment (i.e., some *Cryptosporidium* and *Giardia* cysts and oocysts persist, but are no longer viable of infecting another host). Much more sampling is needed in other regions to determine if stormwater and combined sewer runoff are major sources of *Cryptosporidium* and *Giardia*.

Bacteria Sources in Urban Watersheds

The high concentrations of bacteria in stormwater are derived from many possible human and non-human sources. Consequently, watershed managers must investigate many different sources and source areas in order to develop an effective strategy for bacteria control. Some of the more likely bacteria sources are described in Table 4.

Human Sources of Bacteria

The major source of bacteria in most urban waters was human sewage until the advent of modern waste-

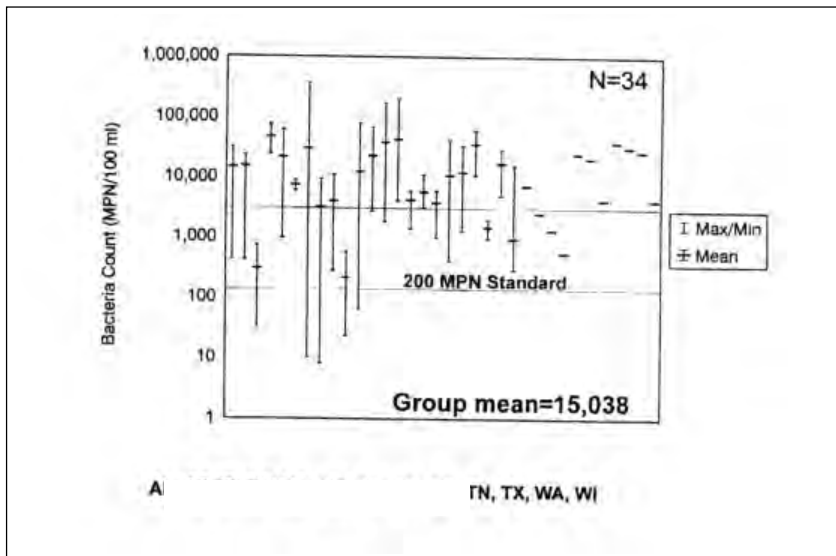


Figure 1: Fecal Coliforms in Urban Stormwater Runoff

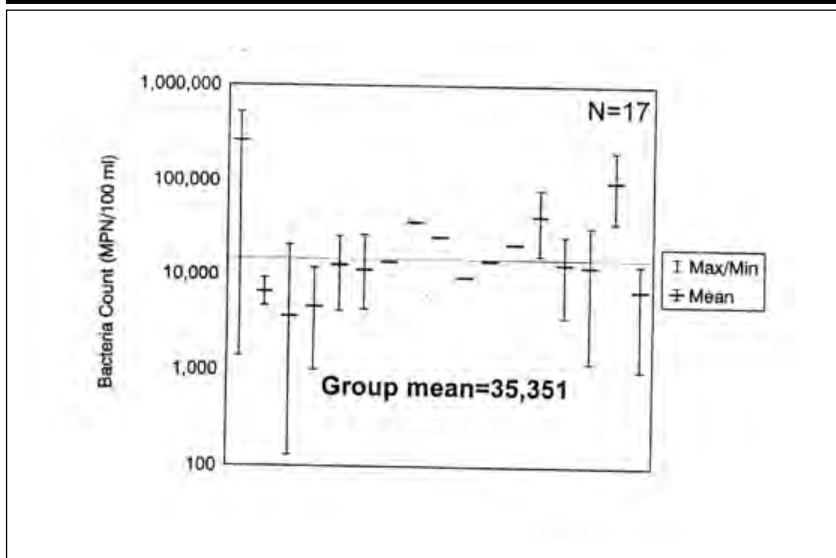


Figure 2: Fecal Streptococci in Urban Stormwater Runoff

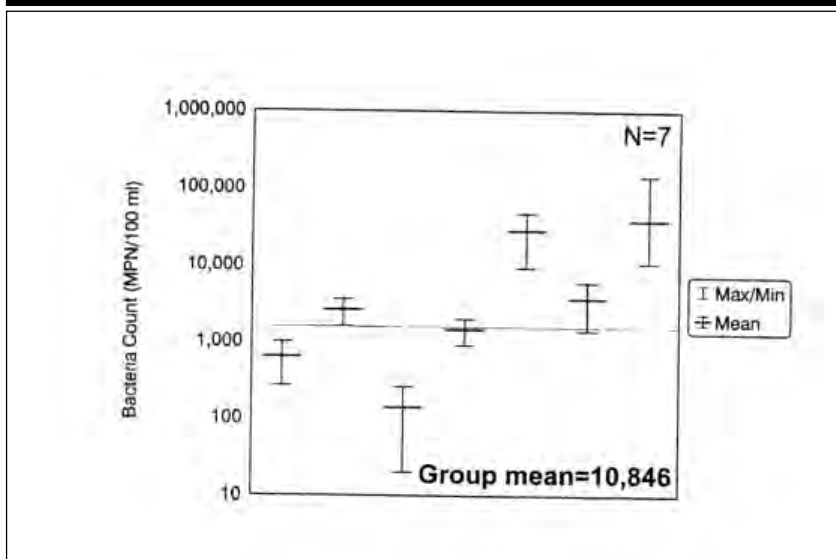


Figure 3: *E. coli* in Urban Stormwater Runoff

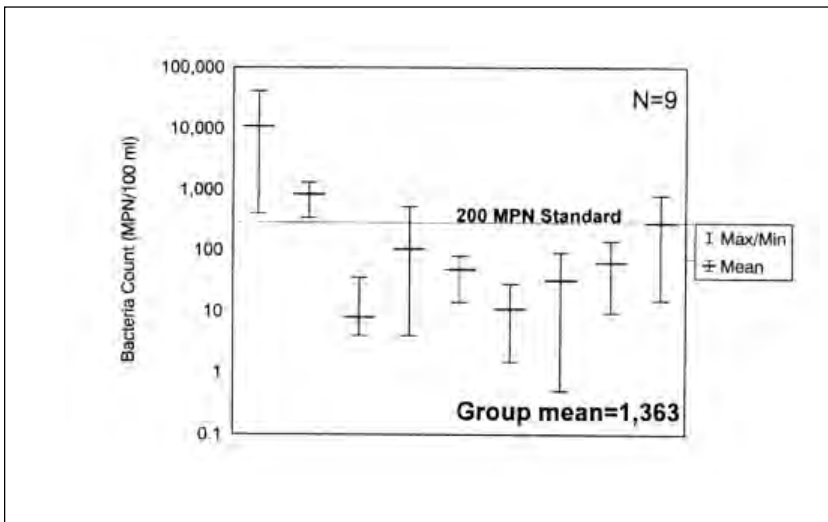


Figure 4: Fecal Coliforms in Winter Runoff

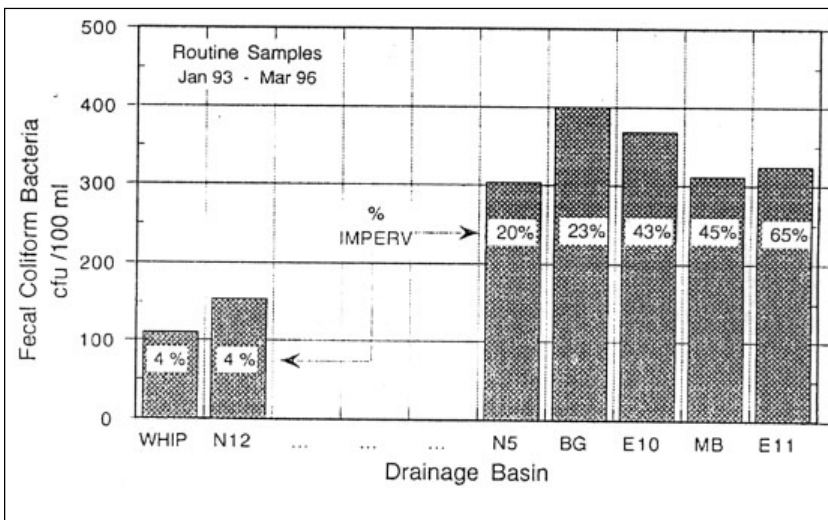


Figure 5: Fecal Coliform Levels in Watersheds of Different Impervious Cover (Hydroqual, 1996)

water treatment. Wastewater is now generally collected in a central sewer pipe and sent to a municipal plant for treatment in most urban watersheds. Ideally, wastewater treatment provides more efficient collection, conveyance, and treatment of wastewater than septic systems or package plants. In reality, many sewer systems are still an episodic or chronic source of bacteria. Potential pathways of human sewage to surface waters include combined sewer overflows, sanitary sewer overflows, illegal sanitary connections to storm drains, transient dumping of wastewater into storm drains and failing septic systems.

The potential significance of sewage as a bacteria source can be quickly grasped from Table 5, which compares typical coliform levels from several waste streams, including raw sewage, combined sewer overflows, failed septic systems, stormwater and forest runoff. Raw sewage typically is about two to three orders of magnitude “stronger” than stormwater runoff in terms of coliform production, and is four to five orders of magnitude “stronger” than forest runoff that is influenced only by wildlife sources. As a general rule, human sources of sewage should be suspected when fecal coliform concentrations are consistently above 10^5 (Pitt, 1998).

- *Combined sewer overflows (CSOs)*

Many older cities have a sewer system that carries both wastewater and stormwater. During some storms, the capacity of the treatment system is exceeded, and diluted wastewater is discharged directly into the surface waters without treatment. As seen in Table 5, CSOs have extremely high bacteria levels and deserve immediate attention as a bacteria source when they are found in any watershed.

- *Sanitary sewer overflows (SSOs)*

Human sewage can be introduced into surface waters even when storm and sanitary sewers are separated. Leaks and overflows are common in

Table 3: Percent Detection of *Giardia* Cysts and *Cryptosporidium* oocysts in Subwatersheds and Wastewater Treatment Plant Effluent in the New York City Water Supply Watersheds (Stern et al., 1996)

Source water sampled (No. of sources/No. of samples)	Percent Detection			
	Total <i>Giardia</i>	Confirmed <i>Giardia</i>	Total <i>Cryptosporidium</i>	Confirmed <i>Cryptosporidium</i>
Wastewater effluent (8/147)	41.5	12.9	15.7	5.4
Urban subwatershed (5/78)	41.0	6.4	37.2	3.9
Agricultural subwatershed (5/56)	30.4	3.6	32.1	3.6
Undisturbed subwatershed (5/73)	26.0	0.0	9.6	1.4

many older sanitary sewers where capacity is exceeded, high rates of infiltration and inflow occur (i.e., outside waters gets into pipes, reducing capacity), frequent blockages occur, or are simply falling apart due to poor joints or pipe materials. Power failures at pumping stations are also a common cause of SSOs. The greatest risk of a SSO occurs during storm events; however, little comprehensive data is available to quantify SSO frequency and bacteria loads in most watersheds. The Association of Metropolitan Sewage Agencies (AMSA, 1994) estimates that about 140 overflows occur per one thousand miles of sanitary sewer lines each year (1,000 miles of sewer serves a population of about 250,000). The AMSA survey also found that 15 to 35% of all sewer lines were over capacity and could potentially overflow during storms.

- *Illicit connections to storm sewers*

Sewage can be introduced into storm sewers by accident or design. The hundreds of miles of storm and sanitary sewer pipes in a community creates a confusing underground spaghetti of utilities, so it should not be surprising that improper connections are made to the wrong sewer. For example, Johnson (1998) reported that just under 10% of all businesses in Wayne County, MI had illicit connections, with an average of 2.6 illicit connections found at each detected business. While most illicit connections did not contain raw sewage (e.g., floor drains, sinks), 11% of the Wayne County illicit connections included toilet discharges. Schmidt and Spencer (1986) found a 38% rate of illicit connections in Washtenaw County, MI, primarily among automobile-related and manufacturing businesses. It is not clear how many of these illicit connections involved sewage, as compared to wash water. Pitt and McClean (1986) detected illicit connections in about 12% of storm sewers in Toronto, and Pitt

(1998) found that 18% of storm outfalls surveyed that had dry weather flow were contaminated by human sewage in a small Alabama subwatershed.

- *Illegal dumping into storm drain system*

There is quite a bit of anecdotal evidence of illegal transient dumping of raw sewage into storm drain

Table 4: Potential Sources of Coliform Bacteria in an Urban Watershed

Human Sources

Sewered watershed

- Combined sewer overflows
- Sanitary sewer overflows
- Illegal sanitary connections to storm drains
- Illegal disposal to storm drains

Non-sewered watershed

- Failing septic systems
- Poorly operated package plant
- Landfills
- Marinas and pumpout facilities

Non-human Sources

Domestic animals and urban wildlife

- Dogs, cats
- Rats, raccoons
- Pigeons, gulls, ducks, geese

Livestock and rural wildlife

- Cattle, horse, poultry
- Beaver, muskrats, deer, waterfowl
- Hobby farms

Table 5: Comparison of Bacterial Densities in Different Waste Streams (MPN/100 ml) (Pitt, 1998; Lim and Oliveri, 1982; Smith *et al.*, 1992, Horsely & Witten, Inc., 1995)

Waste stream	Total coliform	Fecal coliform	Fecal streptococci
Raw sewage	2.3×10^7	6.4×10^6	1.2×10^6
Combined sewer overflow	$10^4 - 10^7$	$10^4 - 10^6$	10^5
Failed septic systems	$10^4 - 10^7$	$10^4 - 10^6$	10^5
Urban stormwater runoff	$10^4 - 10^5$	2.0×10^4	$10^4 - 10^5$
Forest runoff	$10^2 - 10^3$	$10^1 - 10^2$	$10^2 - 10^3$

from septage vac trucks (i.e, honey wagons), recreational vehicles and portable toilets (Johnson, 1998). In addition, there may be inadvertent dumping from moving vehicles, such as live-stock carriers and recreational vehicles. The overall significance of illegal or inadvertent dumping as a watershed bacteria source, however, is hard to quantify.

- *Failing septic systems*

About one-fourth of all American households rely on on-site septic systems to dispose of their wastewater, which translates to about 20 million individual systems (Wilhelm *et al.*, 1994). After solids are trapped in a septic tank, wastewater is distributed through a subsurface drain field and allowed to percolate through the soil. Bacteria are effectively removed by filtering and straining water through the soil profile, if the septic system is properly located, installed and maintained. A large number of septic systems fail, however, when wastewater breaks out or passes through the soil profile without adequate treatment. The regional rate of septic system failure is reported to range from five to nearly 40%, with an average of about 10% (Table 6).

The causes of septic system failure are numerous: inadequate soils, poor design, siting, testing or inspection, hydraulic overloading, tree growth in the drain field, old age, and failure to clean out. When investigating whether septic systems are likely to be a major bacteria source in a watershed, managers should consider the following risk factors: septic systems that are older than 20 years, situated on smaller lots, service second homes or provide seasonal treatment, are adjacent to shorelines or ditches, are located on thin or excessively permeable soils, or are close to bedrock or the water table. The design life of

most septic systems is 15 to 30 years, at which point major rehabilitation or replacement is needed.

Tuthill *et al.* (1998) detected coliforms in 30 to 60% of shallow wells in Frederick County, MD, with the highest concentration found on lots of a half acre or less served by septic systems. Glasoe and Tompkins (1996) reported a much higher failure rate for septic systems situated near waterfront as compared to more upland areas. Duda and Cromartie (1982) reported a very strong relationship between the density of septic systems and shellfish bed closure in the flat coastal plain of North Carolina.

Non-Human Bacteria Sources

Unless an inappropriate human sewage discharge is present in an urban watershed, most of the bacteria present in storm runoff are generally assumed to be of nonhuman origin. Recent genetic studies by Alderiso *et al.* (1996) and Trial *et al.* (1993) independently concluded that 95% of fecal coliform found in urban stormwater were of nonhuman origin. Recent microbial tracking by Samadpour and Checkowitz (1998) also confirms that nonhuman sources (dogs and livestock from hobby farms) were the primary source of bacterial contamination in a lightly developed Washington watershed, although septage effluent was a secondary source.

Documented nonhuman sources of fecal coliform bacteria in urban watersheds are dogs, cats, raccoons, rats, beaver, gulls, geese, pigeons and even insects. Dogs in particular appear to be a major source of coliform bacteria and other microbes, which is not surprising given their population density, daily defecation rate, and pathogen infection rates. According to van der Wel (1995), a single gram of dog feces contains 23 million fecal coliform bacteria. Dogs have also

Table 6: Failure Rate for Septic Systems

Geographic location	Source	Failure rate (%)
Frederick County, MD	Tuthill, 1998	30+
Detroit, MI	Johnson, 1998	20
Wayne County, MI	Johnson, 1998	21
Oakland County, MI	Johnson, 1998	39
Florida	Hunter, 1998	5
Mason County, WA	Glasoe and Tompkins, 1996	12
Puget Sound, WA	Smayda et al., 1996	10 to 25

been found to be significant hosts for *Giardia* and *Salmonella* (Pitt, 1998). The *Salmonella* infection rate for dogs and cats ranges from two to 20% according to Lim and Oliveri (1982), who also noted that dog feces were the single greatest source contributing fecal coliform and fecal strep bacteria in highly urban Baltimore catchments. Trial *et al.* (1993) reported that cats and dogs were the primary source of fecal coliforms in urban subwatersheds in the Puget Sound region. In addition, Davies and Hubler (1979) found 13% of cats and 25% of dogs were infected with *Giardia*. Pitt (1998) notes that prior studies have indicated that dogs are a significant host of *Pseudomonas aureginosa*.

Urban wildlife can also be a significant bacterial source. In highly urban areas, rats and pigeons can be a major source of bacteria (Lim and Oliveri, 1982). In more suburban watersheds, raccoons have adapted to an underground habitat within storm drain pipes, and use ledges in storm drain inlets on a temporary basis. Blankenship (1996) reported that exceedance of *E. coli* standards in a Virginia coastal area was due to the local raccoon population.

Beaver are gradually recolonizing many urban stream habitats where they had previously been extirpated (Kwon, 1997). Numerous studies have fingered beavers as a key source of *Giardia*. For example, Monzingo and Hibler (1987) detected giardia in an average of 44% of beavers sampled in a Montana lodge, and also documented *Giardia* cysts in beaver ponds, pond sediments and downstream waters. Other researchers have found lower infection rates. For example, Frost *et al.* (1980) found *Giardia* in 10% of the beaver population and 40% of the muskrat population, while Davies and Hubler (1979) reported an 18% *Giardia* infection rate among beavers in Ohio.

Geese, gulls and ducks are speculated to be a major bacterial source in urban areas, particularly at lakes and stormwater ponds where large resident populations become established. Levesque *et al.* (1993) detected an increase in *E. coli* concentrations from flock of gulls roosting near a reservoir, which is not to surprising given that they have very high bacteria excretion rates (Table 7). Relatively little data is available to quantify whether geese and ducks are a major source of fecal coliforms or pathogens. Moorhead *et al.* (1998) did find high *E. coli* concentrations in a series of stormwater impoundments in West Texas that were heavily utilized by waterfowl, and other stormwater researchers often attribute high coliform levels to upstream geese or duck populations (Pitt *et al.*, 1988). Bacteria production from waterfowl are expected to be greatest in small impoundments and concrete water storage reservoirs.

Livestock can still be a major source of fecal coliform in unsewered urban watersheds, particularly those areas of the urban fringe that have horse pastures, "hobby" farms and ranchettes (Samadapour and

Checkowitz, 1998). Although these operations are very small, the stocking density is often very high, and good grazing and riparian management practices are seldom applied.

Bacterial Survival and Growth in the Urban Drainage System

It is commonly assumed that most fecal coliform bacteria rapidly die off in the outside world in a few days. Research, however, has shown that many bacteria merely disappear from the water column and settle to bottom sediments, where they can persist for weeks or months in the warm, dark, moist and organic-rich conditions found there (Burton *et al.*, 1987). Fecal coliform levels in stream and lake sediments are routinely three to four orders of magnitude higher than those in the overlying water column (Van Donsel and Geldrich, 1971).

The same behavior has recently been noted in the bottom sediments of stormwater ponds and urban lakes (Pitt, 1998). Other researchers have documented that fecal coliform bacteria can survive and even multiply in the sediments in urban streams, ditches and drains (Burton *et al.*, 1987; Marino and Gannon, 1991). Some evidence of fecal coliform survival has been observed in catch basins (Butler *et al.*, 1995; Ellis and Yu, 1995) and also within roadway curb sediments (Sartor and Boyd, 1977; Bannerman *et al.*, 1996). Coliform bacteria also have been found to survive and grow in moist soils and leaf piles (Oliveri *et al.*, 1977). This may explain why grass swales and ditches frequently have high bacteria levels.

The strong evidence that fecal coliform bacteria can survive and even multiply in sediments indicates that the drainage network itself can become a major bacterial sink and/or source during storm events if sediments are flushed or resuspended.

Bacterial Source Area Research

Several researchers have sampled small source-areas within the urban landscape to determine where the major nonhuman sources of fecal coliforms are found. The two most recent studies have been conducted in Madison, Wisconsin (Bannerman *et al.*, 1993) and Marquette, Michigan (Steuer *et al.*, 1997). While the bacteria levels were widely different in the two studies, both indicated that residential lawns, driveways and streets were the major source areas for bacteria (Table 8). As might be expected, rooftops and parking lots were usually smaller source areas.

The source area data lend some credence to the "Fido" hypothesis—areas of the urban landscape that are used by dogs and other pets tend to generate higher bacteria levels. In addition, both studies reported end-of-pipe bacteria concentrations that were at least an order of magnitude higher than any source area in the

**Table 7: Bacterial Densities in Warm-Blooded Animals Feces
(Pitt, 1998; Godfrey, 1992; Geldrich *et al.*, 1962)**

Waste stream	Fecal coliform (Density/gm)	Fecal streptococci	Unit discharge (lbs/day)
Human	1.3×10^7	3.0×10^6	0.35
Cats	7.9×10^6	2.7×10^7	0.15
Dogs	2.3×10^7	9.8×10^8	0.32
Rats	1.6×10^5	4.6×10^7	0.08
Cows	2.3×10^5	1.3×10^7	15.4
Ducks	3.3×10^7	5.4×10^7	0.15
Waterfowl	3.3×10^7	-	0.18 - 0.35

contributing watershed, which suggests that the storm drain system was the greatest bacterial source in the watershed, possibly as a result of the resuspension of storm drain sediments or an undetected illicit connection. The tendency for end-of-pipe bacteria levels to exceed contributing source area levels was also documented in stormwater source area monitoring in Toronto conducted by Pitt and McClean (1986).

Priorities for Watershed Research.

Our ability to manage bacteria problems on a watershed basis are handicapped by some major data gaps, particularly with respect to pathogen levels, bacterial source areas and the linkage between indicators and human pathogens. The following priority research areas would help to fill these gaps and be of practical value to watershed managers:

- More epidemiological research on the public health risk associated with limited exposure to urban stormwater (wading, canoeing, tubing, etc.).
- Expanded monitoring for *Giardia* and *Cryptosporidium* in stormwater runoff from sewered and unsewered catchments.
- Development of better, faster and more robust bacteria indicator tests that can reduce analysis time from the current 48 hours to two hours or less. Not only would such tests provide early warning of public health risks, but they would allow researchers to collect automated storm samples which is currently not recommended due to holding times.
- Sampling of *Cryptosporidium*, *Giardia* and *Salmonella* infection rates for different populations of dogs, cats, and other urban wildlife.
- More systematic monitoring of the frequency and volume of sanitary and storm sewer discharges to determine bacteria contributions during sanitary sewer overflows and dry weather flows.

- Development of better, faster and more accurate field methods to determine how frequently septic systems fail, and the potential bacterial load they contribute to a watershed. In addition, a standard protocol for defining septic system “failure” needs to be adopted.
- Systematic sampling of bacteria sources and reservoirs within a network of storm drains and stormwater practices should be done.
- Development of watershed models or statistical tools that can better project and quantify bacteria sources and dynamics.

Summary

This review of bacteria levels and sources leads to four troubling conclusions. The first is that it is exceptionally difficult to maintain beneficial uses of water in the face of even low levels of watershed development, given the almost automatic violation of bacterial water quality standards during wet and dry weather. Thus, if a watershed manager has a beach, shellfish bed or drinking water intake to protect, they can expect that even a modest amount of watershed development is likely to restrict or eliminate that use.

The second troubling conclusion is that bacteria levels in urban stormwater are so high that watershed practices will need to be exceptionally efficient to meet current fecal coliform standards during wet weather conditions. Given stormwater fecal coliform levels equivalent to the national mean of 15,000 per 100 ml, watershed practices may need to achieve nearly a 99% removal rate to meet standards. The inability of current stormwater practices, stream buffers and source controls to attain this daunting performance level is reviewed in article 67.

The third troubling conclusion is that watershed managers will need to perform a lot of detective work to narrow down the lengthy list of potential bacteria suspects. Considerable monitoring resources will need

Table 8: Concentrations (Geometric Mean Colonies per 100 ml) of Fecal Coliforms from Urban Source Areas (Steuer *et al.*, 1997; Bannerman *et al.*, 1993)

Geographic location	Marquette, MI	Madison, WI
No. of storms sampled	12	9
Commercial parking lot	4,200	1,758
High traffic street	1,900	9,627
Medium traffic street	2,400	56,554
Low traffic street	280	92,061
Commercial rooftop	30	1,117
Residential rooftop	2,200	294
Residential driveway	1,900	34,294
Residential lawns	4,700	42,093
Basin outlet	10,200	175,106

to be applied to isolate the unique mix of bacteria sources that cause water quality problems in each specific watershed, and more importantly, identify sources that are most controllable.

Lastly, it is very troubling that we understand so little about the actual relationship between bacterial indicators and the risk to public health in urban watersheds. Fecal coliform remains an imperfect indicator, yet no better alternative has yet to emerge to replace it. A great deal more research is needed to fully indicate the real public health risk of urban stormwater. **See also articles 31, 67 and 125. —TRS**

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EXHIBIT K

Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count

A report prepared by
California State University, Sacramento
For
Sacramento Steps Forward



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- o City of Isleton
- o City of Folsom
- o City District Councilmembers and their Chiefs of Staff
- o Del Paso Blvd. Partnership
- o Power Inn Alliance
- o Mack Road Partnership
- o Downtown Sacramento Partnership
- o Sacramento Police Department
- o Sacramento County Sherriff's Department
- o Galt Police Department
- o Citrus Heights Police Department
- o Elk Grove Police Department
- o Folsom Police Department
- o Rancho Cordova Police Department
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- o College of Social Science and Interdisciplinary Studies-CSUS

We would like to also give a special thanks to the approximate 360 community volunteers who took the time to engage with individuals in our community experiencing homelessness. Lastly, we thank the 28 volunteer students at CSUS who donated their time to the project by inputting thousands of data forms and pieces of information into a database; we cite these students as formal contributors to this report in the Appendix.

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Executive Summary

Every two years, the U.S. Department of Housing and Urban Development (HUD) requires local communities to conduct a census of all individuals experiencing homelessness in their region—called the Point-in-Time (PIT) Count—during one night at the end of January. This extensive countywide effort to estimate the local homeless population provides a snapshot of nearly all individuals and families staying at emergency/transitional shelters in the county, as well as those sleeping outside, in tents or vehicles and under bridges. In addition to fulfilling a HUD funding requirement, the PIT Count is a detailed and timely information source for local stakeholders and the broader community to assess the state of homelessness in their region.

Sacramento Steps Forward (SSF) is the lead agency of the Sacramento Continuum of Care, and has held the responsibility of conducting the PIT Count for the past several years. In December 2016, SSF commissioned researchers at *California State University, Sacramento* (CSUS) to supervise and enhance the methodology of the 2017 PIT, as well as provide a thorough analysis of the data collected. This report summarizes some of the key findings and recommendation from the 2017 PIT Count.

Analyses of the various data collected on January 25th, 2017, point to some general conclusions about the state of homelessness in Sacramento County:

1. The county has experienced an increase in the number of individuals and families who confront homelessness on a nightly basis.
 - Since 2015, we estimate a real growth in nightly homeless of approximately 30% (from 2,822 to 3,665).
 - The majority of homeless (56%) in the county are sleeping outdoors (unsheltered), a dramatic change in proportion from previous PIT counts
 - Indeed, there has been more pronounced growth among homeless who are unsheltered and sleeping outdoors (from 1,111 to 2,052; or 85% increase).
2. Because of the disproportionate increase in unsheltered homeless—individuals who tend to have higher and more immediate needs than those in a shelter or transitional housing—the 2017 PIT also saw sharp rise of particular at-risk groups.
 - Approximately 31% of the homeless in Sacramento County are chronically homeless—have experienced prolonged bouts of housing instability and are disabled—which is a substantial increase from the 18% rate reported in 2015.

- We also found a 50% increase in the number of homeless veterans since 2015 (313 to 469).
 - Notably, these estimates suggest that the majority of homeless veterans are unsheltered (69%).
3. Some populations saw little to no change, or even a decrease, since 2015. However, it is unclear whether these decreases may reflect, in part, undercounting of difficult to engage subpopulations.
- The 2017 PIT indicated a 20% decrease in the number of young adults (transitional aged youth) that experienced homelessness on the night of the count since 2015 (242 vs 303).
 - Transitional age youth often experience episodic periods of homelessness, which is likely to be missed in a single-point design study like the PIT.
 - The number of reported homeless families with children declined by 25% between 2015 and 2017 (186 vs. 227).
 - The vast majority (95%) of homeless families are found in shelters or in transitional housing, where they comprise over a third (36%) of all homeless that use shelters.
4. Because the PIT count methodology incorporates hundreds of surveys with individuals not using the shelter system, this report also offered a unique glimpse into the experiences of people who are homeless and sleeping outdoors. Results from the 2017 survey point to a number of notable findings on subpopulations, a few of which include:
- Individuals who reported continuous homelessness tended to be substantially older and were often encountered in encampments near the American River Parkway, in contrast to younger homeless who were interviewed nearer downtown Sacramento.
 - Older individuals indicated as chronically homeless – between 55 and 64 – were also more likely (a 70% greater chance) to report a military past (veteran status) or suffer from a disabling medical condition.
 - Chronically homeless are more likely to suffer from PTSD than the most unsheltered homeless group (54% compared to 46%), and more likely to have a mental condition of any type (64% compared to 57%).

While the significant increases in homelessness in Sacramento County are concerning, the report discusses four key contextual factors that likely contributed, at least partially, to these larger estimates in the 2017 PIT.

Improved methodology

CSUS refined the sampling strategy by which geographic zones were selected for volunteers to canvas on the night of the 2017 PIT. This resulted in a more representative selection of canvassed zones, and in particular included areas of South Sacramento that were likely under-sampled in previous years. Greater care was also given in 2017 to provide volunteers clear routing directions, to ensure that the entire geographic areas were canvassed. We estimate that the improved methodology contributed to approximately 15% greater efficiency in the 2017 estimates; as such, we estimate that the 2015 count of unsheltered persons experiencing homelessness would have been approximately 6% larger if the same methodologies had been implemented that year.¹

Severe weather and flooding

Between December 2016 and January 2017, Sacramento County, and Northern California in general, experienced torrential rainstorms, which resulted in severe flooding throughout the region. Notably, the American River rose to historic levels and flooded many of the riverbank areas that some groups experiencing homelessness use to camp, particularly in the unincorporated parts of the county. The extreme weather conditions likely contributed to significant migration of some homeless communities from more rural parts of the county to the urban center of Sacramento. This was evident by reports of several volunteers who described densely packed “tent communities” in non-flooded parts of the park, particularly near the Garden Highway. Notably, the number of tents recorded by volunteers in 2017 was almost three times the number reported in 2015 (363 vs. 133). Moreover, geo-spatial analysis of the count data indicated a clear pattern of high concentrations of homeless near unflooded parts of the American River. While it is difficult to estimate how many of these individuals in tents would have likely been undercounted under normal conditions, it is reasonable to assume that a significant number were included in the 2017 PIT due to their weather based migration.

¹ The 2017 PIT included a broader set of sampled zones than in previous years, particularly in southern parts of the city of Sacramento. These zones yielded approximately 14.7% of the total count for unsheltered homeless in 2017. By rough approximation, one could assume that the 2015 estimate of 948 unsheltered homeless, which omitted these zones, effectively represented only 85.3% of the total unsheltered homeless that year. Dividing the 948 total by its effectiveness rate of 85.3% suggests the 2015 total unsheltered population was approximately 1,111 ($\frac{948}{85.3\%} = 1,111$). Readers should note that these omitted zones would have only impacted the unsheltered count, and not the sheltered count, which would have remained the same at 1,714. In total the adjusted 2015 count would have been approximately 2,822 ($1,111+1,711=2,822$) or 6% higher than the 2,659 reported.

Growth in homelessness in the state

The rise in homelessness between 2015 and 2017 in Sacramento County is consistent with similar increases recently reported across the state. At the time of this writing, a number of communities have reported significant increases between their 2015 and 2017 estimates for persons experiencing homelessness on a nightly basis:

- 39% increase reported in Alameda County (5,629 vs. 4,040).
- 76% increase reported in Butte County (1,983 vs. 1,127).
- 23% increase reported in Los Angeles County (57,794 vs. 44,359).

Trends of homelessness in Sacramento County are generally consistent with the broader patterns of homelessness in California. For example:

- The high proportion of homeless found sleeping outside in Sacramento (56%) is consistent with California's overall average of 66% unsheltered homeless.
- Sacramento's rate of chronic homelessness of 31% is close in range to California's rate of 25%.
- The majority of homeless veterans in the county are unsheltered (69%), consistent with the state average of 66%.

These statewide trends reflect a confluence of social and economic factors, and highlight that homelessness is a local community issue, but one that is likely affected by broad dynamic trends.

Housing market conditions

Given the recent sharp increases in rental rates in Sacramento and the low stock of affordable housing units in the area, the growth in the number of persons experiencing homelessness is consistent with trends reported by other communities across the country with tight housing market conditions. Analyses of national PIT data have found that rental housing market factors – particularly housing costs – are the strongest predictors of homelessness across the communities. In particular, the proportion of residents in these communities who spend more than 30% of their total income on housing was strongly predictive of the overall homelessness rate in the region. These findings are telling given recent reports by the Sacramento Housing Alliance that 4 out of 10 residents in Sacramento spend over 50% of their monthly income on housing (SHA, 2016).

The report concludes by suggesting a number of recommendations to improve the methodology and implementation of future PIT studies in the county. Although extensive efforts were undertaken to improve the geographic sampling of the 2017 PIT count, in future years further measures could improve the efficiency and accuracy of the PIT count. These include increased data sharing with local law enforcement agencies, using technology to increase survey response rates, greater engagement with youth populations, and additional training of survey volunteers. In addition, future efforts could seek to discover rates of homelessness among LGBTQ populations as well as to better understand the factors that contribute to homelessness in Sacramento County.

Finally, the report discusses some general conclusions about community needs that the above findings identify. These include the need for more Emergency Shelter beds, Permanent Supportive Housing programs in the county, and affordable housing options for residents. While these recommendations are not in of themselves new, or unknown by most homeless service providers and advocates, the findings of this report likely highlight a new level of severity for these issues in Sacramento County.

Contents

- ACKNOWLEDGEMENTS 2**
- EXECUTIVE SUMMARY 3**
- INTRODUCTION 10**
 - COLLABORATIVE EFFORT 10
 - REPORT ROADMAP 11
- SECTION 1 METHODOLOGY..... 13**
 - ESTIMATING SHELTERED HOMELESS 13
 - ESTIMATING UNSHELTERED HOMELESS..... 13
 - MAPPING & SAMPLING 14
 - CANVASSING AND ENUMERATING 17
 - SURVEY INTERVIEWS 18
 - SURVEY CLEANING AND ANALYSIS 19
 - LIMITATIONS 21
- SECTION 2 GENERAL FINDINGS 23**
 - NIGHTLY ESTIMATES 23
 - CHANGES OVER TIME 24
 - CONTEXT TO CONSIDER..... 25
 - Severe weather and flooding* 25
 - Growth in homelessness in the state*..... 26
 - Housing Market*..... 27
 - DEMOGRAPHICS OF UNSHELTERED HOMELESS 27
- SECTION 3 SUBPOPULATIONS 30**
 - CHRONICALLY HOMELESS..... 30
 - VETERANS 36
 - TRANSITIONAL AGE YOUTH 40
- OTHER RISK FACTORS 42**
 - FORMER FOSTER YOUTH 42
 - VICTIMS OF DOMESTIC VIOLENCE 43
 - FAMILIES WITH CHILDREN 43
- SECTION 4 GEO-SPATIAL ANALYSIS OF THE 2017 PIT 45**
 - ESTIMATES BY CITY 45
 - GIS MAPS 47
 - FIGURE 15: SPATIAL DISTRIBUTION COUNTY MAP 47
 - FIGURE 16: SPATIAL DISTRIBUTION DOWNTOWN SACRAMENTO MAP 48

EXTRAPOLATED VS. SAMPLED ZONES..... 49

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS 50

WORKS CITED 56

APPENDIX 58

HUD DATA TABLES 58

EXTRAPOLATING PROCESS 64

ENUMERATION INSTRUCTIONS 65

SURVEY INSTRUMENT 67

STUDENT CONTRIBUTORS..... 71

approximately 6% larger if the same methodologies had been implemented.¹² Taking into consideration this adjusted-2015 estimate suggests:

- The *real* growth in total homeless in Sacramento County was approximately 30% between 2015 and 2017 (3,665 vs. 2,822).
- The *real* growth in unsheltered homeless in Sacramento County was approximately 85% between 2015 and 2017 (2,052 vs. 1,111).

Context to Consider

The *real numbers* of individuals experiencing homelessness in the county are undoubtedly even higher than the 2017 PIT estimates, particularly given the limitations and narrow definitions of homelessness assumed in the study design.¹³ Nonetheless, the above estimates are useful to consider as a standard barometer of relative change in homelessness; assuming that PIT studies are implemented generally consistently from year to year, their results likely capture relative change in the homeless population over time. It is clear that even considering the adjustments in methodologies in 2017, homelessness has likely increased in Sacramento County by at least a third (30%).

A reported rise in the number of homeless is often met with concern by the public, who may worry about the number of homeless migrating from other communities, the effectiveness of current programs, and public safety in general. While these are important issues to consider, the authors of this report nonetheless believe it is important to consider the rise of homelessness in the context of the following contributing factors:

Severe weather and flooding

Between December 2016 and January 2017, Sacramento County, and Northern California in general, experienced torrential rainstorms, which resulted in severe flooding throughout the region. Notably, the American River rose to historic levels and flooded many of the riverbank areas that some homeless use to camp, particularly in the unincorporated parts of the county. Indeed, in the week prior the 2017 PIT CSUS had to adjust or abandon many of the geographic zones in the American River Park used in prior

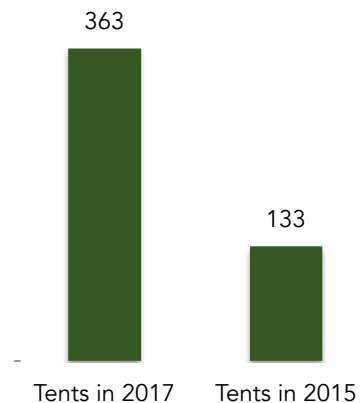
¹² The 2017 PIT included a broader set of sampled zones than in previous years, particularly in southern parts of the city of Sacramento. These zones yielded approximately 14.7% of the total count for unsheltered homeless in 2017. By rough approximation, one could assume that the 2015 estimate of 948 unsheltered homeless, which omitted these zones, effectively represented only 85.3% of the total unsheltered homeless that year. Dividing the 948 total by its effectiveness rate of 85.3% suggests the 2015 total unsheltered population was approximately 1,111 ($\frac{948}{85.3\%} = 1,111$). Readers should note that these omitted zones would have only impacted the unsheltered count, and not the sheltered count, which would have remained the same at 1,714. In total the adjusted 2015 count would have been approximately 2,822 (1,111+1,711) or 6% larger than the reported 2,659.

¹³ In section 4 of this report we consider other data sources and statistical approaches to provide a less-conservative estimate of homelessness within each of the seven incorporated cities in the county. This includes extrapolating estimates from un-sampled regions of the county (estimating the predicted number of homeless that could have been encountered in regions not-canvassed on January 25th) and incorporating data collected beyond the time parameters of the PIT study design.

PIT studies due to severe flooding. The extreme weather conditions likely contributed to significant migration of some homeless communities from more rural parts of the county to the urban center of Sacramento. This was evident by reports of several volunteers who described densely packed “tent communities” in non-flooded parts of the park, particularly near the Garden Highway. Notably,

- The number of tents recorded by volunteers in 2017 was almost three times the number reported in 2015 (363 vs. 133).

Figure 3: Tents Reported



- The additional 230 tents in 2017 represented an additional 460 homeless individuals.
- These additional individuals account for approximately 47% of the total change in homelessness between 2015 and 2017 (470 out of the 941 increase in adjusted unsheltered).

- It is likely that individuals in many of these tents generally reside in areas of the American River that are not typically canvassed in PIT studies. But due to flooding and their subsequent migration, these individuals were more likely to be counted in the 2017 PIT than in previous years. While it is difficult to estimate how many of these individuals would have likely been undercounted under normal conditions, it is reasonable to assume that a significant number were included in the 2017 PIT due to their weather based migration.

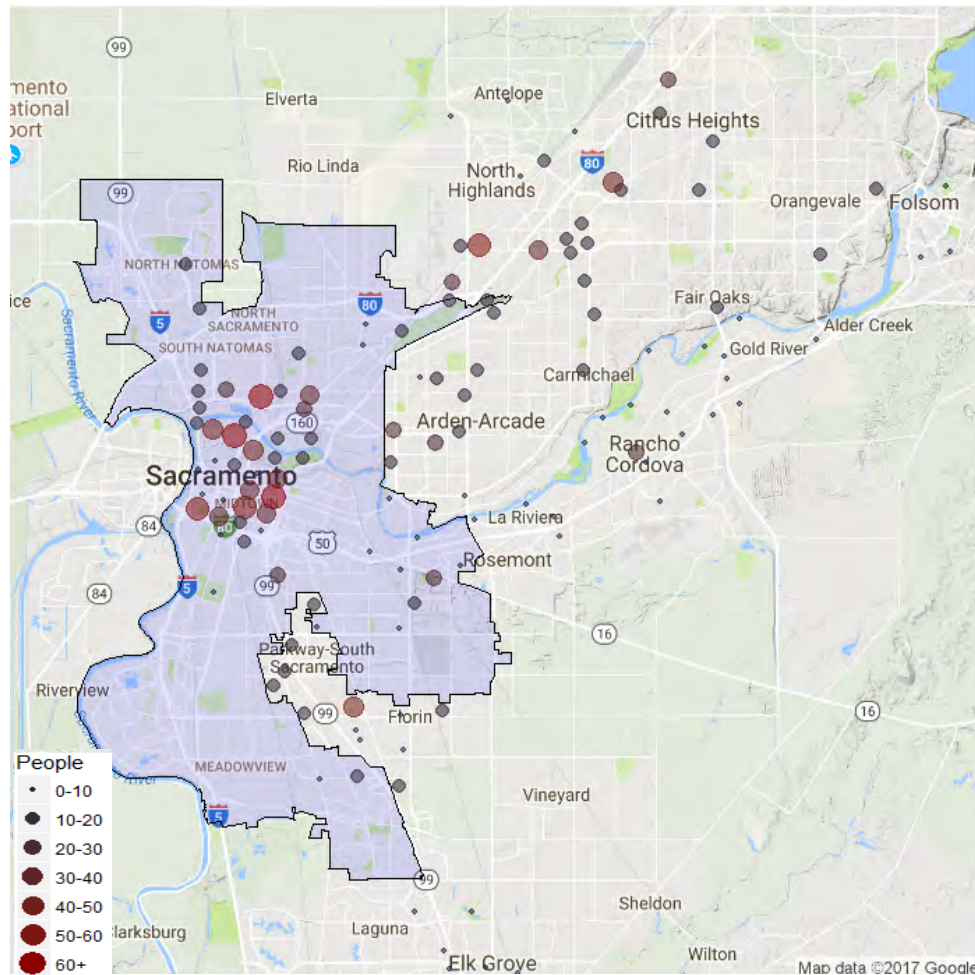
Growth in homelessness in the state

California has the largest homeless population in the US; approximately a quarter of all people experiencing homelessness in the country reside in the state (AHAR, 2015). The state also has the highest proportion of chronically homeless individuals—individuals with a disability who have experienced prolonged periods of housing instability. These statewide trends reflect a confluence of social and economic factors, such as the high cost of living, dearth of affordable housing and a high poverty rate. They also highlight that homelessness is a local community issue, nonetheless affected by broad statewide dynamics. This is important to consider in light of the above reported increases in the 2017 PIT estimates. Indeed, the rise in homelessness between 2015 and 2017 in Sacramento County is consistent with similar increases recently reported across the state. At the time of this writing, a number of communities have reported significant increases between their 2015 and 2017 estimates for nightly homeless:

- 39% increase reported in Alameda County (5,629 vs. 4,040).
- 76% increase reported in Butte County (1,983 vs. 1,127).

GIS Maps

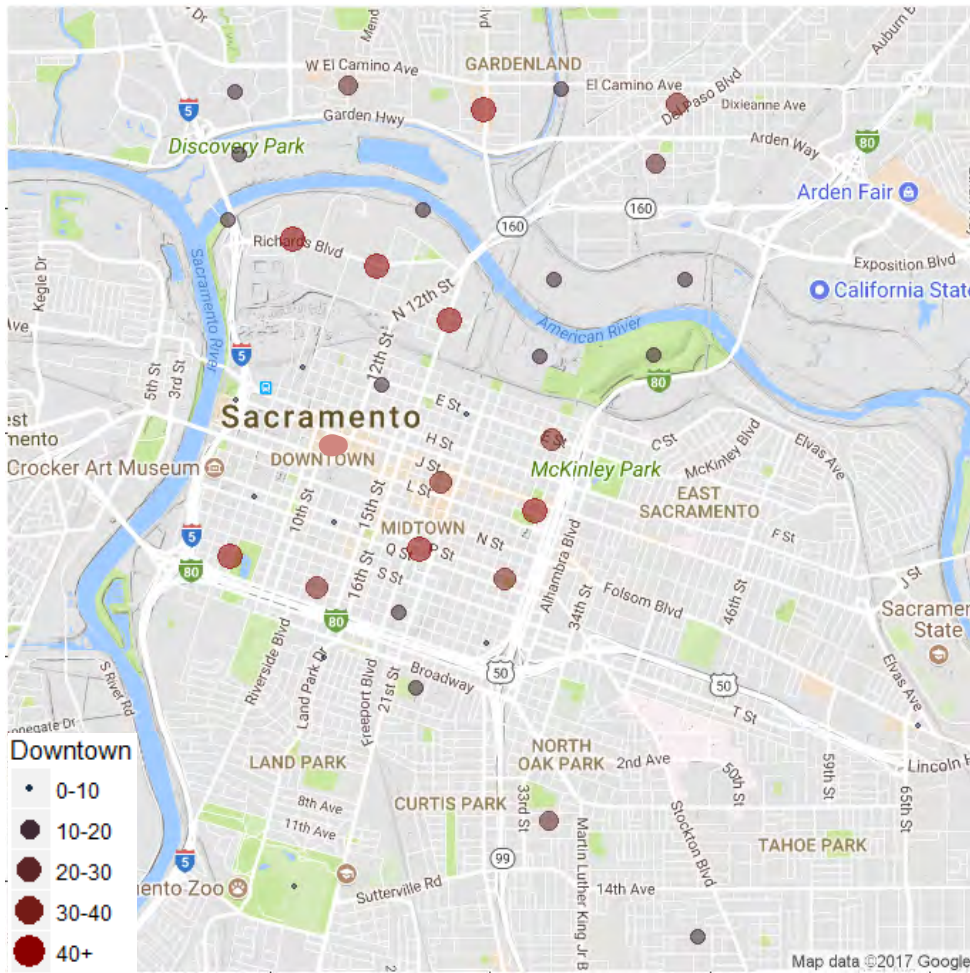
Figure 15:
Spatial Distribution County Map



As with most spatially defined data, one of the best mechanisms for understanding patterns in homeless population density is through GIS mapping. The above map provides a clear picture of many of the trends we have discussed throughout this report. In this image, the light blue outlined space is the Sacramento City boundaries, while the counted (and estimated) populations are represented by a color and size gradation – so that the larger bright red circles represent high-density zones and the smaller grey and black circles represent low-density zones.

As previously mentioned, Sacramento and the surrounding areas saw a record-breaking winter weather system that caused severe flooding – especially around the cresting American River. The map shows that, especially in the length between Rosemont and Folsom, volunteers found very few homeless in most of the areas situated next to the river. Indeed, with the exception of Rancho Cordova, spatial patterns strongly suggest that homeless individuals were pushed north into the less densely populated unincorporated areas of Sacramento County. In future PITs, it is expected that many more homeless individuals will return to areas near the river – a trend that will be particularly interesting to investigate.

Figure 16:
Spatial Distribution Downtown Sacramento Map



Focusing on downtown Sacramento, one can also clearly see concentrations of individuals being pushed further north and south from the river's edge. This is especially true near Discovery Park and the State Fairgrounds – two areas that saw the largest impact from the floods. The areas near Richards Boulevard and El Camino Avenue saw significant numbers of homeless individuals in tents, which further illustrates the impact of the flooding on migrating homeless communities. It is also evident a large portion of the homeless population in Sacramento is found in the midtown corridor, and along the main highways. In the midtown corridor, specifically between K and Capitol and from 23rd to 26th streets, there are four large churches for homeless individuals to find shelter. Between P and R streets from 19th to 23rd there are also large warehouses and structures under which homeless individuals can find shelter – particularly near the Safeway, the Light Rail stop, and the Sacramento Bee offices. As expected, there is a dense population of homeless individuals near the Capitol and Caser Chavez park. Along the main highways, there are a number large parking structures beneath the overpasses as well as sections between X and Broadway that see little regular foot traffic. These areas are ideal spaces for homeless individuals to take shelter during inclement weather.

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EXHIBIT L

TWO RIVERS TRAIL PHASE II
INCONSISTENCIES WITH AMERICAN RIVER PARKWAY PLAN

Sacramento County 2008 American River Parkway Plan	Inconsistency
<p>Plan Introduction: <i>“The Parkway’s open spaces and natural resources provide Parkway users with a highly-valued natural setting and feeling of serenity, in the midst of a developed urban area. For purposes of the Parkway Plan, it is important that these values are acknowledged. The following elements are valued aspects of the Parkway experience that should be considered as part of the aesthetic values of the Parkway:</i></p> <ul style="list-style-type: none"> • <i>Feeling of peace and tranquility experienced by the people who visit and use the Parkway, and</i> • <i>Feeling and experience of harmony that prevails between what is natural in the Parkway and the animals that live in it.”</i> 	<p>The “feeling of peace and tranquility” and “feeling and experience of harmony that prevails between what is natural and the animals will live in it” will of course be degraded for the thousands of current users by the addition of a paved bike trail. As compared to its current natural state, the addition of a paved bike trail works against this “peace, tranquility, and harmony with nature” framing of the Plan.</p> <p>There is already a paved bike trail on the north side of the river; the last wild space on the south side of the river should be preserved to maintain the “peace and tranquility” option for trail users.</p>
<p>Chapter 2, Policy 3.2: <i>“Agencies managing the parkway shall protect, enhance and expand the parkway’s native willow, cottonwood, and valley oak-dominated riparian and upland woodlands that provide important shaded riverine aquatic habitat (SRA), seasonal floodplain, and riparian habitats; and the native live oak and blue oak woodlands and grasslands that provide important terrestrial and upland habitats.”</i></p>	<p>The <i>Phase II</i> project plan includes destruction of natural habitat. There is a mitigation plan, but this existing natural habitat will be destroyed forever.</p> <p>There is already a paved bike trail on the north side of the river; why not preserve the last wild space on the south side of the river to maintain this habitat?</p>
<p>Chapter 2, Policy 8.11: <i>“Parkway trail connections to other local, regional and State trails shall be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway’s ecosystem”</i></p>	<p>The project as proposed would result in significant impacts to vegetation, including the removal of numerous trees and elderberry shrubs (home to the threatened valley elderberry longhorn beetle). It has been stated that the City expects that over a million dollars will need to go towards mitigating the environmental impacts of this project. This is not consistent with designing for “minimal damage”.</p>

<p style="text-align: center;">Sacramento County 2008 American River Parkway Plan</p>	<p style="text-align: center;">Inconsistency</p>
<p>Chapter 10, Policy 10.26: <i>“Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area.”</i></p> <p><i>“Due to the limited access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area. Permanent structures and any other physical changes that would attract groups of users should not be introduced to the area. Acceptable activities include fishing, kayaking, wading, sunbathing, hiking, volleyball, and related beach activities.”</i></p>	<p>A paved bike trail is a “physical change that would attract groups of users.” The project facilitates use by additional individuals. Additionally, the report statement, <i>“The proposed trail will allow more Parkway users to access Paradise Beach”</i> is a direct contradiction to the report’s previous statement that it won’t attract additional groups of users.</p> <p>A paved bike trail would also exacerbate parking issues at Glen Hall Park. As an access point for a paved portion of the Parkway, additional individuals will drive their bikes into the area and park at that location.</p> <p>The narrowness and unstable soil of the area proposed for paving would lead to substantial disruption, including retaining walls and levee cut-and-fill in order to construct the trail.</p>
<p>Chapter 2, Policy 7.8: <i>“Facilities and other improvements in Protected Areas shall be limited to those which are needed for the public enjoyment of the natural environment. Extensive development is not appropriate.”</i></p>	<p>The <i>2008 Parkway Plan</i> says projects should be “limited to those which are needed for the public enjoyment of the natural environment”.</p> <p>The current trail configuration already provides “public enjoyment of the natural environment.”</p> <p>In addition, another paved trail is “needed” because a paved trail already exists on the north side of the river.</p>
<p>Chapter 10: Paradise Beach: From the description of the area: <i>“Paradise Beach is designated as a “Protected Area by the Parkway Plan; This area contains many elderberry bushes and provides excellent habitat for the Valley Elderberry Longhorn Beetle. Due to the limited access, annual flooding, and unstable sandy soil, Paradise Beach should remain an informal recreation area.”</i></p>	<p>The <i>Phase II Plan</i> directly contradicts the statement in the <i>2008 Parkway Plan</i> that this be an “informal” recreation area. A paved bike trail would create a “formal” recreation area and destroy portions of this “Protected Area” in the process.</p> <p>In particular, the elderberry bushes critical to the survival of the Valley Elderberry Longhorn Beetle would be destroyed by trail construction.</p>
<p>Chapter 10: Paradise Beach: From the description of the area: <i>“Beach users funnel through a single access point and fan out to the various use areas”</i></p>	<p>The paved bike trail would create substantial conflict between various types of users of this area coming through the “single access point.”</p>
<p>“Safety and Security” Subchapter: <i>“Illegal camping is especially common in the westerly five mile reach from Discovery Park to Cal Expo...The presence of this population undermines other Parkway visitors’ sense of security and safety.”</i></p>	<p>Illegal camping is concentrated at Sutter’s Landing, where the pavement ends. The pavement would facilitate the travel of illegal campers into this sensitive area.</p>

<p style="text-align: center;">Sacramento County 2008 American River Parkway Plan</p>	<p style="text-align: center;">Inconsistency</p>
<p>Chapter 2, Policy 11.5: <i>“New facilities and programs shall not be developed unless the financial resources to operate and maintain them are identified and available”</i></p>	<p>Both the City and the County have stated that no new funding has been identified for maintenance. The paved trail is thus inconsistent with these statements in the <i>2008 Parkway Plan</i>.</p> <p>The Bank Protection Working Group report (March 13, 2018) provides preliminary results of the Paradise Bend to Howe Avenue Reach. Four of the 6 “Tier 1 Segments” (immediate threat of failure with 160K cfs flow) are in the Paradise Beach area. This is too fragile an area to build a paved trail that will likely need periodic repair.</p>
<p>Chapter 2, Policy 8.11: <i>“Parkway trail connections to other local, regional and State trails shall be designed and located to support bicycle commuting and recreation with minimal damage to the Parkway’s ecosystem”</i></p>	<p>The project as proposed would result in significant impacts to vegetation, including the removal of numerous trees and elderberry shrubs (home to the threatened valley elderberry longhorn beetle). Although the environmental review has not yet been completed, the City expects that over a million dollars will need to go towards mitigating the environmental impacts of this project. This is inconsistent with designing for “minimal damage”.</p>

From: [Adam Randolph](#)
To: [Craig Rakela](#)
Cc: [Jocelyn Navarro](#); [Weiss, Ray](#)
Subject: RE: Two Rivers Trail
Date: Tuesday, March 26, 2019 12:40:30 PM

Good afternoon Mr Rakela,

Thank you for expressing your interest and concerns. The concept of the Two Rivers Trail on the south side of the American River has been in existence since 1994 and been included in many planning documents since. The parallel route has been desired by both the City and County as it provides greater access and mobility. Similar paths have been established in many areas of the City, including just east of River Park, in the College Greens neighborhood. We are petitioning the flood control board to allow us to place a short stretch of the trail on the levee top (about 1500 feet just east of Cap City Freeway). We are coordinating to ensure that the district is not impaired in their ability to maintain the levee.

Cheers,

Adam Randolph

-----Original Message-----

From: Craig Rakela <crakela@comcast.net>
Sent: Monday, March 25, 2019 5:29 PM
To: Adam Randolph <ARandolph@cityofsacramento.org>
Subject: Two Rivers Trail

To Mr. Adam Randolph, P.E.

My family and I have been out of town during any meetings that have been held in 2018, so maybe some of these concerns have been addressed.

We walk in this area near the river with and without our dog. I am worried about having to cross in front of bicycles to go down to the river and also walking near moving bicycles. Has another solution been considered to allow bicyclists the ability to go from the current bike trail to the other side of the river somewhere else with less of a residential population?

If you are considering building on top of the levee, won't this interfere with maintenance (levee repair, grass cutting, etc.).

Thanks for your consideration
Craig Rakela

Tom Buford

From: Trev Neeley <tdneeley@ucdavis.edu>
Sent: Tuesday, May 21, 2019 11:40 AM
To: Tom Buford
Subject: Re: Two Rivers Trail: Notice of Preparation of EIR: Comments May 21, 2019 to June 19, 2019

Thank you for the update. I am excited to have the trail paved and more accessible to the community.

-Trevor Neeley

On Tue, May 21, 2019 at 10:57 AM Tom Buford <TBuford@cityofsacramento.org> wrote:

The City of Sacramento prepared and circulated an Initial Study and Mitigated Negative Declaration (MND) for the Two Rivers Trail. Following public comment and further review, the City will prepare an Environmental Impact Report (EIR) for the project. The first step in the EIR process is the circulation of a Notice of Preparation. The documents prepared for the MND will remain on the Community Development Department environmental document web site for reference purposes.

The **Community Development Department environmental document web site may be accessed online at www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.**

Please contact me with any questions. We appreciate your interest in the project.

Tom

Tom Buford, Manager

Environmental Planning Services

(916) 799-1531

Trev Neeley

pronouns: they/them/theirs

Tom Buford

From: Raider57th@yahoo.com
Sent: Tuesday, May 21, 2019 12:46 PM
To: Tom Buford
Subject: Re: Two Rivers Trail: Notice of Preparation of EIR: Comments May 21, 2019 to June 19, 2019

Tom

My daughter and her husband own a home that backs up to the proposed trail improvement. So I hear about this project from them and their neighbors.

I have a question on your EIR. One of the main concerns I hear is that if the path is improved, it will bring homeless into to river park levee area. Apparently they don't choose to come to this portion of the levee due to the difficulty of bringing in carts and such over gravel roads and that obstruction will be eliminated if the levee is improved.

There have been recent news articles about the damage the homeless are doing to other levee areas in the city.

Did your EIR consider this potential impact?

Dan

Dan Ruiz
916.296.1813
Raider57th@yahoo.com (personal email)
Sent from my iPhone

On May 21, 2019, at 10:57 AM, Tom Buford <TBuford@cityofsacramento.org> wrote:

The City of Sacramento prepared and circulated an Initial Study and Mitigated Negative Declaration (MND) for the Two Rivers Trail. Following public comment and further review, the City will prepare an Environmental Impact Report (EIR) for the project. The first step in the EIR process is the circulation of a Notice of Preparation. The documents prepared for the MND will remain on the Community Development Department environmental document web site for reference purposes.

The Community Development Department environmental document web site may be accessed online at www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.

Please contact me with any questions. We appreciate your interest in the project.

Tom

*Tom Buford, Manager
Environmental Planning Services
(916) 799-1531*

<Two Rivers Trail NOP 5.21.2019.pdf>

Tom Buford

From: Pam Kennedy <pammyjan@gmail.com>
Sent: Tuesday, May 28, 2019 11:43 AM
To: Tom Buford
Subject: two rivers trail

We still don't understand why this project is necessary. Wit the trail on the other side from J street bridge to 28th street. It has upkeep and not that much traffic. There also is now a huge bike trail that follows Elvas and is rarely used. This area of the river should remain without paving and not the impact of high speed bikes... the impact of shopping carts used by the drug addicts that camp along the river especially when they have easy access. I simple path is so nice for the residents of river park and we are not taken into account considering it is our backyard! The excess usage of the bikes and the drug addicts will surely impact the environment as well as escalate costs for patrol which is not adequately done at this time!! We do not want campers starting fires and leaving trash!!! paving will escalate this!

Thank you,

Pam Kennedy

5319 Sandburg Dr, Sacramento, CA 95819

Two Rivers Trail Phase II

City of
SACRAMENTO

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Patrick Brown

Organization: Resident

Mailing Address: 5800 Shepard Ave
Sac 95819

E-mail: pbrown@ucdavis.edu

Comment: Extending segment 4 to where
Serome intersects the trail/river would
greatly mitigate the environmental
impact by avoiding having
toe trail in the narrowest part
of the project where biological impact
is greatest.

The toe path in narrowest section
also represents a high construction
and maintenance cost as water
(during high flow years) and vegetation
incursion will occur.

To: Adam Randolph and Jeff Harris, City of Sacramento
Re: Two Rivers Trail

6/8/19

Dear Adam, Jeff,

I hope to attend the meeting June 8th to present these views but should that not be possible I wish to reiterate my previous email that "the city should request a waiver to place the bike trail on the levee top for the section of the trail from just west of where Caleb would intersect the levee, to the I80 bridge".

The AFRDC policy specifically allows for these exceptions to general policy on a case by case basis, and in this case, it makes sense in so many ways:

1. The narrowest segments of the proposed trail, from where Caleb would intersect the levee to the I80 bridge, are simply too narrow to accommodate the trail while protecting environmental resources.
 - a. The width in much of this section is no more than 15 feet wide with many overhanging trees, wonderful wooded walking spaces, active beaver and birdlife, many large trees and dense vine covered warrens filled with wildlife (quail, coyote, rabbit etc), elderflower, oaks, cottonwood etc.
 - b. This section of the trail is among the most popular of all current walking trails in the region.
2. Placing the trail along these narrowest segments will have the greatest environmental impact of any section of the trail and hence will complicate the EIR and require expensive mitigation.
3. Placing the trail along these narrowest segments will incur large ongoing maintenance as vegetation encroachment will be persistent and require considerable ongoing maintenance
4. Placing the trail along these narrowest segments will be considerably more expensive for project construction.
5. Placing the trail along these narrowest segments will increase the risk of levee damage since water frequently inundates that area in wet years thus requiring
 - a. closing the trail and consequent disruption to commuters
 - b. requiring post inundation cleaning and repair of submerged trailway and trailway-levee interface
6. The May 2012 Urban Levee Design criteria indicates that erosion of levee base is proportional to velocity of river flow, a paved pathway at the levee base clearly represents greater potential for increased flow velocity at levee base and is thus a flood risk and maintenance cost.

While the project has an admirable goal, it would be irresponsible to not vigorously pursue the sensible option of levee top placement for this last narrowest segment, to do otherwise would be a dereliction of our duty to spend public funds wisely.

Sincerely,



Patrick Brown,
Professor, College of Agriculture and Environmental Sciences -UCD
and River Park Resident

5303041390



Tom Buford

From: Daniel Thomas <dan_4896@yahoo.com>
Sent: Saturday, June 8, 2019 1:29 PM
To: Tom Buford
Cc: Kate Riley
Subject: Two rivers trail project concern

Hi Tom,

I attended this mornings meeting. Thank you for your time and energy spent on this project.

I'm a 61+ year resident of this city and I hope you're available to reply to my email.

My wife and I have resided in river park for 13 years and walk the unincorporated section of the river an average of 2-3 times per week. We have seen homeless people 2-3 times, maximum, during this timeframe while walking this section of the river. This equals approximately 1690 walks. The percentage is quite low.

I have witnessed the increase of homelessness in the entire city except on this section of the parkway.

Our concern is the homeless population will merge into our quiet neighborhood and river trails with the paving of the proposed trail.

I'm concerned the paving of this section will invite the homeless into our neighborhood.

Would you be willing to address how this problem will be addressed if the trail project successfully moves forward?

Thank you for your time reading this email.

Best Regards,
Daniel Thomas

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Thank you for your time reading this email.

Best Regards,
Daniel Thomas

Executive Director

ManAlive Sacramento Inc.
7000 Franklin Blvd Suite 640
Sacramento, Ca 95823
1-877-662-8465 ext 8
www.no2violence.com

Email Disclaimer: This email and any attachments thereto may contain private, confidential, and privileged material for the sole use of the intended recipient. Any review, copying, or distribution of this email (or any attachments thereto) by other than the intended recipient is strictly prohibited. If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto.

Tom Buford

From: Matt Mitchell <mtmitchell916@gmail.com>
Sent: Tuesday, June 11, 2019 6:32 PM
To: Tom Buford; Jeff S. Harris; David Gonsalves
Subject: comments for Two Rivers Bike Trail EIR
Attachments: Two Rivers.docx

Dear Mr. Buford,

Please see both below and attached for my comments on the Two Rivers Bike Trail EIR. As you will see, I am a River Park-based supporter of the project. Best regards,

Matt Mitchell
(916) 747-9743

Dear Mr. Buford:

As a longtime River Park resident and community activist (I am a former River Park Neighborhood Association board president), I am writing to let you know that I am among the many River Park residents who quietly support the proposed Two Rivers Bike Trail. There are numerous reasons why people in River Park support the trail. Here are my own:

1. First, as a longtime environmentalist, I always support bike trails as a means for people to reduce their carbon footprint and add to their personal health. Given our mild climate and flat topography, I think Sacramento should have the goal of becoming the most bike friendly city in the country. It seems crazy to me that people in my neighborhood are currently opposing an initiative that makes it easier to ride a bike.
2. Second, as a bike rider, I am always looking for safer ways to ride. The entrance to River Park at Carlson and H. Street is a prime example of the worst in mid twentieth century car-oriented urban planning. It is no coincidence that this intersection has been the site of two recent bike fatalities. I strongly support the Two Rivers Bike Trail as an obvious means for people to more safely enter and leave River Park.
3. Third, as a parent, I am always looking for ways to safely increase my children's mobility. As it now stands, if my two teenage boys want to get on a bike to go visit friends in East Sacramento or Midtown, they have no choice but to contend with the aforementioned lethal intersection at Carlson and H. Street. The Two Rivers Bike Trail would give my children greater freedom and mobility.
4. Fourth, as a citizen, I am always looking for ways to foster urban integration and connectivity. River Park is an overwhelming white neighborhood, and while there is no shame in this I will say that I dislike the optics of a group of River Park residents resisting a bike trail that better connects our neighborhood to its diverse urban context.
5. Fifth, as a person with an MS in Urban Planning from Columbia University, I am an advocate of urban parks. I firmly believe that the lower several miles of the American River Parkway needs a wholesale rethink to make it look and function more like a proud urban park, and less like a jungle of riparian vegetation for the dispossessed to hide themselves within while the City dithers over solutions to its homeless problem. This gets at the real reason some people in River Park are resisting the Two Rivers Bike Trail, which has nothing to do with the environmental mask they have donned ("Save Don't Pave"). In reality, these people fear making it easier for the homeless to migrate upriver. While this fear is not

completely groundless, we should let a large and generous urban vision, and not fear-based NIMBY politics, drive our plans for the future.

Thank you for the opportunity to comment on this important project.

Sincerely yours,

Matthew Mitchell

Matthew T. Mitchell
5311 Spilman Avenue
Sacramento, CA 95819
mtmitchell916@gmail.com

Mr. Tom Buford
Principal Planner
City of Sacramento
Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811

Re: Comments on Two Rivers Bike Trail EIR

Dear Mr. Buford:

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- First, as a longtime environmentalist, I always support bike trails as a means for people to reduce their carbon footprint and add to their personal health. Given our mild climate and flat topography, I think Sacramento should have the goal of becoming the most bike friendly city in the country. It seems crazy to me that people in my neighborhood are currently opposing an initiative that makes it easier to ride a bike.
- Second, as a bike rider, I am always looking for safer ways to ride. The entrance to River Park at Carlson and H. Street is a prime example of the worst in mid twentieth century car-oriented urban planning. It is no coincidence that this intersection has been the site of two recent bike fatalities. I strongly support the Two Rivers Bike Trail as an obvious means for people to more safely enter and leave River Park.
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Thank you for the opportunity to comment on this important project.

Sincerely yours,

Matthew Mitchell

Two Rivers Trail Phase II

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Toni Pezzetti

Organization: none

Mailing Address: 5840 Spilman Ave Sacto 95819

E-mail: tpezz@comcast.net

Comment: ① Please assess the potential annual impacts to the two rivers trail resulting from annual, 10-year, 100-year, and 1,000-year flood events. Please consider damage to the trail, (both dg and asphalt), sediment removal, and reconstruction. Please identify both frequency of immersion and damage resulting from high velocity flows and quantify the O&M costs to the city.

② Please identify the specific methods the city will be using to prevent homeless encampments from occurring as a result of improvements ~~of the trail~~ associated with the Two Rivers Trail

trail and river access

③ Please maintain the sunset to sunrise access to the park parking lot

④ Please consider an alternative using the existing Elvas corridor ~~at the~~

Fold here

**Re: Two Rivers Trail Project Phase II
Notice of Preparation / Public Scoping Meeting**
Tom Buford, Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, CA 95811

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Email: _____

Place
Stamp
Here

Tom Buford

From: J. Scott Coatsworth <scott@mongooseontheloose.com>
Sent: Wednesday, June 12, 2019 8:00 PM
To: Tom Buford
Subject: Two Rivers Trail

Hi Tom,

My husband and I live in River Park, and we're really excited about the trail. The existing gravel levee trail is murder on a bike – we've only tried it once, and it felt very unsafe, not to mention the risk of popping a tire.

We mostly use H Street to get into midtown on our bikes, but the H Street/Carlson intersection and the freeway underpass area are especially problematic for bikers.

It would be really nice to have a safe way to bike into town among such beautiful surroundings.

So I'm a yes for the trail.

Thanks!

J. Scott Coatsworth
River Park

Tom Buford

From: Jason Grefrath <grefrath@gmail.com>
Sent: Thursday, June 13, 2019 1:03 PM
To: Tom Buford
Cc: Matt Mitchell
Subject: Fwd: comments for Two Rivers Bike Trail EIR
Attachments: Two Rivers.docx

Tom,
I wanted to echo Matt's thoughtful comments below and add my name in support of the trail. I am a very avid cyclist and an almost 20 year resident of River Park.

I would happily use the trail to get to midtown and likely would ride the trail several times a week, year-round. The trail would be a safe and convenient way for me to get to midtown.

I can also see the trail as a safer way for many 7th and 8th graders to ride their bikes to Sutter Middle School. Both of my daughters attended Sutter and both rode their bikes on H to get there. It's a dangerous route for adults and especially for children.

You have my support and thank you for helping make the trail possible.

Best regards,
Jason Grefrath
5609 Callister Avenue

Sent from my iPhone

Begin forwarded message:

From: Matt Mitchell <mtmitchell916@gmail.com>
Date: June 12, 2019 at 7:21:26 PM PDT
To: Eric Haff <erickhaff@gmail.com>, grefrath@gmail.com, Corey Brown <coreymarcy@icloud.com>, Marco Guzman <marco@mongooseontheloose.com>, "J. Scott Coatsworth" <jscottc@me.com>
Subject: Fwd: comments for Two Rivers Bike Trail EIR

Hi guys,

Just as a reminder if you are a supporter of the Two Rivers Bike trail like me the deadline for comments on the EIR is Wednesday, June 19. If we don't speak up our voices are likely to be drowned out by the "Save Not Pave" crowd. Tom Buford is the planner working on the project for the City, and his e-mail is tbuford@cityofsacramento.org. My comments are below if you are interested.

Cheers!

Matt

Matt Mitchell
mtmitchell916@gmail.com
(916) 747-9743

----- Forwarded message -----

From: **Matt Mitchell** <mtmitchell916@gmail.com>

Date: Tue, Jun 11, 2019 at 6:32 PM

Subject: comments for Two Rivers Bike Trail EIR

To: <tbuford@cityofsacramento.org>, Jeff S. Harris <jsharris@cityofsacramento.org>, <dgonsalves@cityofsacramento.org>

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(916) 747-9743

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4. Fourth, as a citizen, I am always looking for ways to foster urban integration and connectivity. River Park is an overwhelmingly white neighborhood, and while there is no shame in this I will say that I dislike the optics of a group of River Park residents resisting a bike trail that better connects our neighborhood to its diverse urban context.
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Thank you for the opportunity to comment on this important project.

Sincerely yours,

Matthew Mitchell

Tom Buford

From: Mark Guzman <mark@mongooseontheloose.com>
Sent: Thursday, June 13, 2019 8:42 AM
To: Tom Buford
Subject: The Two River Trail

As a bike rider, I am in support of the paving of the levee trail. This would provide a much safer means of riding than either on the city streets or on a gravel path, which has caused flat tires in the past.

I look forward to being able to use the paved levee trail.

Thank you.

Mark Guzman

Two Rivers Trail Phase II

City of
SACRAMENTO

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Name: STEVEN W. ANDREWS

Organization: Resident, River Park Neighborhood, City of Sacramento

Mailing Address: 5415 Spilman Ave, Sacramento CA 95819

E-mail: Steve.Andrews@ic.ca.gov

Comment: While I don't disagree with the "Civic Improvement" spirit of the project I must object to the timing. Creating a corridor by which easier access to our neighborhood will be possible, I am concerned that this will bring an influx of transients who ~~to~~ compromise the safety and security of the residents of this community. Statistically, increased police presence and safety issues for ^{resident} children and students at Caleb Greenwood will be likely based on drug activity & property crimes those without homes typically are involved in. Our city is at a crossroads: until the homeless issues are adequately addressed I don't see this project ~~and~~ as an overall benefit to our community given these considerations.

Fold here

**Re: Two Rivers Trail Project Phase II
Notice of Preparation / Public Scoping Meeting**
Tom Buford, Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, CA 95811

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Email: _____

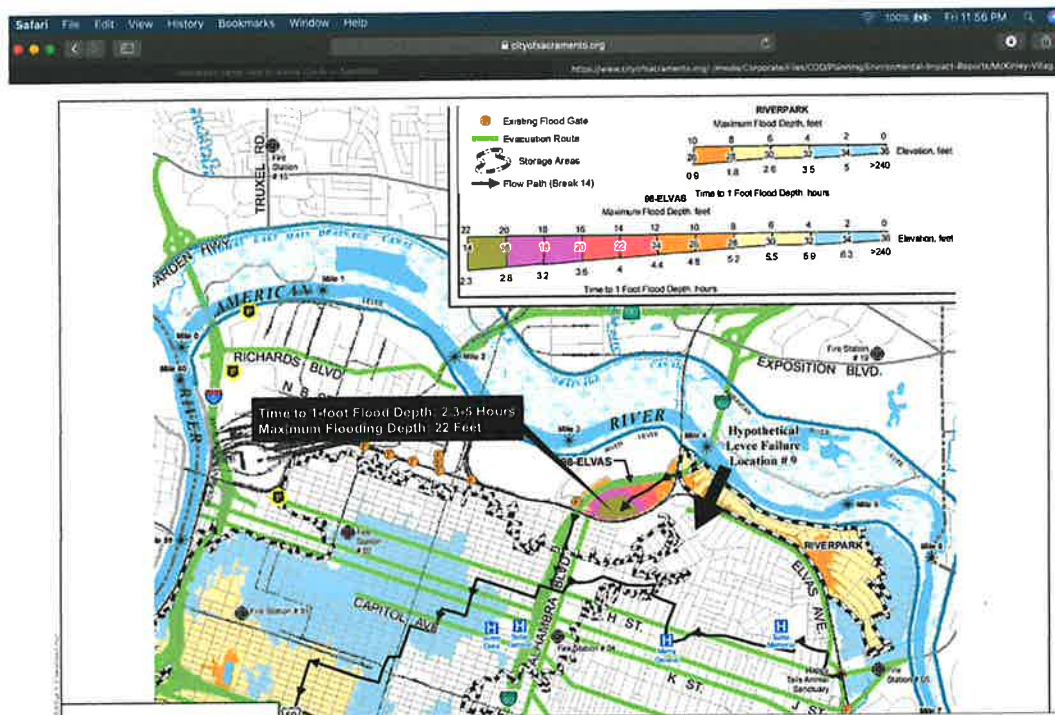
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THE TOP THREE REASONS WHY I OPPOSE THE TWO RIVERS TRAIL PROJECT

1) Cutting into the levee to clear the path for an unnecessary bike trail does not seem prudent as that levee is our only barrier between the river and the homes in River Park. Also, paving the section at the top of the levee near the CapCity Freeway goes against the initial recommendations of the Flood Control authorities, which is why the entire trail cannot be paved there. A levee breach or complete failure would be catastrophic for River Park homeowners.

I found the following Levee Breach Scenario in the McKinley Village Draft EIR from November 2013 located online at: <https://www.cityofsacramento.org/-/media/Corporate/Files/CDD/Planning/Environmental-Impact-Reports/McKinley-Village/045Hydrology-Water-Quality-and-Drainage.pdf?la=en>

The entire River Park community is extremely vulnerable and this alone should be a **SHOWSTOPPER** for the Two Rivers Trail Project .



2) This seems like a huge waste of money ~ there will be a bike/pedestrian path



allowing access across the river at the CapCity Freeway with the upcoming CapCity Corridor freeway expansion project as shown in the picture below .

It is not necessary that the path jog left into River Park. River Park can be circumvented 100%.

EXAMPLES OF HOW THE TRAIL CAN STILL BE CONTINUOUSLY CONNECTED, USING TRAVEL TO/FROM SAC STATE TO SUTTER'S LANDING AS AN EXAMPLE :

Coming from Sac State to Sutter's Landing:

Cross to the north side of the trail at the Guy West bridge or H Street bridge
Continue down the north side of the trail until reaching the CapCity freeway bike/
pedestrian path
Turn left and cross the bridge to reach the south side of the trail
Turn right and continue on the trail towards Sutter's Landing

Coming from Sutter's Landing to Sac State:

Travel down the south side of the trail until reaching the CapCity freeway bike/
pedestrian path
Turn left and cross the bridge to reach the north side of the trail

Turn right and continue down the north side of the trail until reaching the H Street bridge or Guy West bridge
Cross the bridge where appropriate and take whatever path desired to access the Sac State campus.

Those that live in River Park can use the top of the levee to access Sutter's Landing or Sac State. The streets in River Park can also be used to gain access to the H Street bridge and the trail there as well.

3) The proposed area for the trail in River Park is under water often in the winter due to the storms and snow runoff. This will likely add a substantial amount more to maintenance costs over time.

I don't think items #2 and #3 are even necessary to list after reviewing the information in item #1 and seeing the levee breach scenario rendering. It is unthinkable that lives and properties would be risked for an unnecessary bike trail ~ especially since the River Park leg of the trail can be circumvented in both directions as described in #2 above.

Carla DuCray

Carla DuCray
3759 Erlewine Circle
Sacramento, CA 95819
carladucray@gmail.com
6/8/19

Two Rivers Trail Phase II

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Barbara Debert

Organization: Save Don't Burn

Mailing Address: 4200 Moddison Ave
Sacto, CA 95819

E-mail: debertbarbara@gmail.com

Comment: I live on Moddison across
from the fence and we frequently
have problems & people coming
thru the gate at all times.

I am concerned that this will
become an informal access/egress
point to the trail which will

create parking and other
problems for residents in the
area. The residents who want

the gate open are not protected
by the homeless & others who come
thru the gate. If this point

becomes an informal egress/access
point steps will need to be taken to
protect the residents rights in

the area - parking permits -
resident parking for starters
- can will also have people parking at

for the
TRAIL

C:\Arianna\field\1129114

currently utility pole - hang from wall of open
cellar basement parking in unpopulated
they will need permits to install
upcoming covers

Return or Address Parking only
- get at the end of work?
- return - return points

Fold here

**Re: Two Rivers Trail Project Phase II
Notice of Preparation / Public Scoping Meeting**
Tom Buford, Principal Planner
Community Development Department
300 Richards Boulevard
Sacramento, CA 95811

Name: _____
Address: _____
City: _____
State: _____ Zip: _____
Email: _____

Place
Stamp
Here

Two Rivers Trail Phase II

City of
SACRAMENTO

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Name: Patrick Brown

Organization: Resident

Mailing Address: 5800 Shepard Ave
Sac 95819

E-mail: pbrown@ucdavis.edu

Comment: Extending segment 4 to where
Serome intersects the trail/river would
greatly mitigate the environmental
impact by avoiding having
toe trail in the narrowest part
of the project where biological impact
is greatest.

The toe path in narrowest section
also represents a high construction
and maintenance cost as water
(during high flow years) and vegetation
incursion will occur.

To: Adam Randolph and Jeff Harris, City of Sacramento
Re: Two Rivers Trail

6/8/19

Dear Adam, Jeff,

I hope to attend the meeting June 8th to present these views but should that not be possible I wish to reiterate my previous email that "the city should request a waiver to place the bike trail on the levee top for the section of the trail from just west of where Caleb would intersect the levee, to the I80 bridge".

The AFRDC policy specifically allows for these exceptions to general policy on a case by case basis, and in this case, it makes sense in so many ways:

1. The narrowest segments of the proposed trail, from where Caleb would intersect the levee to the I80 bridge, are simply too narrow to accommodate the trail while protecting environmental resources.
 - a. The width in much of this section is no more than 15 feet wide with many overhanging trees, wonderful wooded walking spaces, active beaver and birdlife, many large trees and dense vine covered warrens filled with wildlife (quail, coyote, rabbit etc), elderflower, oaks, cottonwood etc.
 - b. This section of the trail is among the most popular of all current walking trails in the region.
2. Placing the trail along these narrowest segments will have the greatest environmental impact of any section of the trail and hence will complicate the EIR and require expensive mitigation.
3. Placing the trail along these narrowest segments will incur large ongoing maintenance as vegetation encroachment will be persistent and require considerable ongoing maintenance
4. Placing the trail along these narrowest segments will be considerably more expensive for project construction.
5. Placing the trail along these narrowest segments will increase the risk of levee damage since water frequently inundates that area in wet years thus requiring
 - a. closing the trail and consequent disruption to commuters
 - b. requiring post inundation cleaning and repair of submerged trailway and trailway-levee interface
6. The May 2012 Urban Levee Design criteria indicates that erosion of levee base is proportional to velocity of river flow, a paved pathway at the levee base clearly represents greater potential for increased flow velocity at levee base and is thus a flood risk and maintenance cost.

While the project has an admirable goal, it would be irresponsible to not vigorously pursue the sensible option of levee top placement for this last narrowest segment, to do otherwise would be a dereliction of our duty to spend public funds wisely.

Sincerely,



Patrick Brown,
Professor, College of Agriculture and Environmental Sciences -UCD
and River Park Resident

5303041390



Two Rivers Trail Phase II

City of
SACRAMENTO

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Sheri Opp, DDS, MSD

Organization: Private home owner

Mailing Address: 5315 Sandburg Drive

Sac, CA 95819

E-mail: zzvovii@aol.com

Comment: I have lived in River Park since 2002. We specifically

chose this area because of the tranquil trail behind us.

I am a runner, walker and mountain biker and can not

imagine something worse than paving over what is so

beautiful. A paved road - and I say road because it will be

large enough for a truck to drive on it - will irreparably

damage the serene landscape behind us. Trees and bushes will

be removed and trimmed to make way for this road. This area

will never be the same once this is done. The only way to

really understand this is to walk along those trails and

experience the natural beauty. MANY more people use this trail

and are opposed to paving than there are bikers that want it.

The whole project is a colossal waste of city resources. I

am strongly opposed to any pavement but if it has to be done,

then pave the top of the levee which is already ugly. This

solution would save a ton of money and alleviate the

grievances that many have who are against this project -

namely destroying the beauty of the landscape that is used and

beloved by so many.

Sincerely, Sheri Opp

From: [Stephanie Shelley](#)
To: [Tom Buford](#)
Subject: Two Rivers Trail Phase II Comments
Date: Tuesday, June 18, 2019 2:38:40 PM

Good afternoon, Mr Buford

I attended the meeting on 6/8/19 and my preference is to abandon the trail on the River Park side of the river and update and improve the already existing trail on the Cal Expo side of the river where there are less homes.

If the city insists on going ahead with the Two Rivers Trail Phase II, I would like to submit the following concerns/comments:

- 1) Do NOT put trail on top of levee regardless of some concerns from people about the cutting of trees and vegetation. The noise pollution is already almost unbearable. It will be so much worse with more traffic. **Are there noise restrictions for park areas?** If not, there needs to be especially since the trail will be located literally in the backyards of citizens.
- 2) There needs to be an increase in Rangers staff to adequately patrol and monitor the new bike trail for anticipated increase in illegal and transient activities. There will be very unhappy citizens if we are told that the Rangers are stretched too thin to manage the area.
- 3) There needs to be an increase in waste management crews to the area to ensure that garbage is picked up and areas cleaned.
- 4) Because an influx of transients are expected once the access is provided via access from the I-80 footbridge, there needs to be safety measures implemented for the communities living in proximity to the bike trail. This should include call boxes similar to what is used on the Cal State campus so that police or rangers can be called quickly and security cameras in designated areas to discourage illegal activities.
- 5) Bicyclists travel too fast and are dangerous to pedestrians. There must be clearly posted signage as to speed limits and fines for violations of traffic rules. **Can photo radar be used to tag and cite violators?**

Thank you

Stephanie Shelley
5013 Teichert Ave
Sacramento, CA
509-294-2634
ponedal3@msn.com

From: [Brian Nowicki](#)
To: [Tom Buford](#)
Subject: Two Rivers Trail--Phase II, EIR
Date: Tuesday, June 18, 2019 9:51:25 PM
Attachments: [TRT_scoping_comments_\(Nowicki\)_06_19_2019.pdf](#)
[SC Sac on TRT 04092019.pdf](#)

Hello Mr Buford. Please accept the attached comment letter on the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project.

Please also include this April letter from the Sacramento Group of the Sierra Club.

Thank you. Brian

Brian Nowicki
Sacramento, CA 95819

June 19, 2019

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

RE: Comments on the Notice of Preparation of a Proposed Draft Environmental Impact Report for the Two Rivers Trail Phase II Project

Dear Mr. Buford.

Thank you for this opportunity to provide comments as the City prepares the DEIR for the Two Rivers Trail - Phase II project. Please consider including these components in the analysis of the project in the DEIR.

1. Changing the alignment of Segment 5A would avoid the majority of impacts to the narrowest and most sensitive section of riparian area and habitat.

The DEIR should identify the environmental impacts and mitigation costs associated with Segment 5A, and consider a modest change in the design that would largely avoid the great majority of impacts to the narrow riparian area along the American River and to the habitat of the federally threatened Valley Elderberry Longhorn Beetle.

According to the American River Flood Control District's Recreational Trails Policy, the ARFCD Board can give consent for reaches of the trail to be constructed on the levee crown if certain conditions are met. At the City's request, the District Board approved the construction of a 1500-foot section—known as Segment 4—of the Two Rivers Trail on the levee crown with certain conditions.

Directly adjacent to and continuous with Segment 4 is Segment 5A, the reach of trail where the terrace at the levee toe is narrowest and most densely vegetated with large trees and elderberry shrubs. It is this reach, Segment 5A, construction of a paved trail at the toe of the levee would result in the vast majority of the impacts to the existing riparian area and habitat for the Valley Elderberry Longhorn Beetle, the federally listed threatened species that is closely dependent on elderberry shrubs. That is, this single half-mile section, as designed, contains the great majority of the environmental impacts of the entire 2.4-mile project, the removal of large trees and elderberry stems. A further adjustment in the design of the trail, to extend the portion of the trail that is already slated to be constructed on the crown of the levee, could avoid the great majority of these impacts.

To better inform this alternative, the DEIR should identify the environmental impacts, construction costs, and mitigation costs specifically associated with each segment of the project. If Segment 5A or any other segment involves exceptionally high costs and environmental impacts, this can help the City, the public, and the ARFCD understand and evaluate the options.

2. Mitigation for the impacts to the riparian area and Valley Elderberry Longhorn Beetle should be sited along the project area.

The DEIR should include in the project design mitigation measures that would ensure that any loss of riparian trees and impacts to Valley Elderberry Longhorn Beetle be mitigated through replanting of trees and elderberry shrubs in the riparian area adjacent to the Two Rivers Trail between Sutter's Landing and the H Street Bridge. The riparian area in this reach is exceedingly narrow and vulnerable to damage and disturbance. Furthermore, while there is some prime habitat for Valley Elderberry Longhorn Beetle along this reach of the American River, the groups of elderberry shrubs are separated in many areas, raising the risk that the population will become fragmented. Planting elderberries to bridge those gaps would increase the connectivity and the resilience of the population of this threatened species.

3. Leaving some areas unpaved could satisfy the needs of the project while avoiding the greatest negative environmental impacts.

The DEIR should consider leaving a portion of the trail unpaved where paving the toe road would require removing trees or valley elderberry longhorn beetle habitat. The current lack of pavement is apparently not a barrier to the many commuters and recreational cyclists that currently use this area. The existing path at the levee toe and the gravel road on the levee crown are currently heavily used for bike recreation and commuting by both road bikes and hybrids. Furthermore, there is currently a 20-foot-wide road along the levee crown for the entirety of the project area. The DEIR should consider options for some or all of this project unpaved, not as a mountain bike trail, but as part of the parkway bike system. This would be a "no paving" alternative, separate from the "no project" alternative. Similarly, the DEIR should consider alternative construction designs to reduce the width of the bike path through those sections where the terrace at the levee toe is narrow and the current construction design requires the removal of trees and elderberry.

4. The aerial photos of the project fail to accurately present the current condition of the project area.

The project materials provided with the MND included a series of maps of the project area that are based on aerial photos. Those photos were altered to remove the trees that overhang the foot path at the toe of the levee and the vegetation that encroaches on that path. Presumably, the vegetation was edited out of the photos in order to provide an unobstructed view of the project area. This provides a misleading representation of the proposed project and fails to convey the impacts of the project. The DEIR should clarify the nature of these altered aerial photos in the

map, and should include both unaltered aerial photos and photos of the levee toe that show the current condition of the project area, particularly Segment 5A, where impacts to existing vegetation and wildlife habitat are greatest.

5. Crime Prevention Through Environmental Design can result in substantial and ongoing environmental impacts.

The purpose of the project is to increase access to the area, which would presumably increase traffic and use. If increased use results in an associated increase in illegal activities—nighttime partying, campfires, etc.—the City is likely to respond with Crime Prevention Through Environmental Design. Recent applications of CPTED have involved removing all understory vegetation from the targeted area. If CPTED is similarly applied along the proposed bike trail, this would result in ongoing impacts to the wildlife habitat and narrow riparian corridor along the river, potentially for years after the completion of project construction. The DEIR should include these potential impacts to the wildlife habitat and corridor of the riparian area.

I understand that the City expects that the project will result in decreased illegal activity along the trail as a result of increased traffic, referred to as “activation” or “eyes on the trail.” That may be the case for the bike trail itself. However, in many places along the project area, dense foliage creates a virtual wall along the levee toe, providing an almost complete visual screen just feet from the path. This is the case in many places in the project area and most consistently at the west end of the project area. The area behind this screen will not be visible (or “activated”) from the paved trail, although the project will dramatically increase traffic and access to them. If that increase in traffic and use leads to an increase in illegal activities, the City is likely to respond with CPTED, which would most likely focus on “activating” the area adjacent to the bike trail by removing understory vegetation. It is this understory vegetation that makes this exceedingly narrow riparian area valuable as habitat and wildlife corridor. Reducing the structural diversity and visual screen would greatly diminish the biological value of the area.

Thank you for your consideration of these comments.

Sincerely,



Brian Nowicki
River Park resident
(916) 254-0471
bmnowicki@gmail.com



Sacramento Group
909 12th Street, Suite 202
Sacramento, CA 95814

April 9, 2019

Mayor Darrell Steinberg
City Hall, 915 I Street, 5th Floor
Sacramento, CA 95814

Councilmember Jeff Harris
Sacramento City Council, District 3
City Hall, 915 I Street, 5th Floor
Sacramento, CA 95814

Re: Two Rivers Trail, Phase II: design changes to reduce environmental impacts

Dear Mayor Steinberg and Councilmember Harris.

The Sacramento Group of the Sierra Club has been following the Two Rivers Trail project; some of our members have been in attendance at the City sponsored meetings to gather and report information to our group. Our Executive Committee is requesting that the City make a modest change in the design for the Two Rivers Trail, Phase II; this change would completely avoid the great majority of negative environmental impacts to the narrow riparian area along the American River and to the habitat of the federally threatened Valley Elderberry Longhorn Beetle.

On March 29, 2019, the American River Flood Control District, Board of Trustees voted to conditionally approve a segment of the Two Rivers Trail in River Park to be constructed on the levee crown. The City's initial design for this segment of the trail proposed placing the trail in an engineered notch cut into the waterside slope of the levee. Further study identified numerous challenges to that design, which would involve exceptional costs for construction and mitigation.

Per the Flood Control District's Recreational Trails Policy, the District Board can give consent for reaches of the trail to be constructed on the levee crown if certain conditions are met. At the City's request, the District Board approved the construction of a 1500-foot section—known as Segment 4—of the Two Rivers Trail on the levee crown with certain conditions.

Directly adjacent to and continuous with Segment 4 is Segment 5A, the reach of trail where the terrace at the levee toe is narrowest and most densely vegetated with large trees and elderberry shrubs. It is this reach, Segment 5A, where construction of a paved trail at the toe of the levee would result in the vast majority of the impacts to the existing riparian area and habitat for the Valley Elderberry Longhorn Beetle—the federally listed threatened species that is closely dependent on elderberry shrubs. That is, this single half-mile section, as designed, contains the greatest majority of the negative environmental impacts of the entire 2.4-mile project, the removal of large trees and elderberry stems.

We ask the City to make a further adjustment in the design of the trail, to extend the portion of the trail that would be constructed on the crown of the levee to include a portion of Segment 5A sufficient to avoid these impacts.

Not only would this adjustment in design dramatically reduce the impacts of the project overall, it would also dramatically reduce the cost of the project. \$2.6 million of the projected \$6.4 million cost of the project is mitigation for environmental impacts, a majority of which are the impacts to Valley Elderberry Longhorn Beetle habitat. The design adjustment we are proposing would avoid these impacts almost entirely. It would also reduce the potential difficulties with, or possibly even the need for, obtaining permits for impacts to the Valley Elderberry Longhorn Beetle, thereby reducing both the expense and the delays of the project.

Given that there has already been a change in the design—and unanimous approval by the American River Flood Control District, Board of Trustees to allow a segment of the trail to be constructed on the levee crown—we urge the City to request that the American River Flood Control District also allow a portion of segment 5A to be built on the levee crown and to conduct an Environment Impact Report to consider an alternative that includes construction of a portion of Segment 5A on the levee crown.

In addition, we urge the City to include in the project design mitigation measures that would ensure that any loss of riparian trees and impacts to Valley Elderberry Longhorn Beetle be mitigated locally, through replanting of trees and elderberry shrubs in the riparian area adjacent to the Two Rivers Trail between Sutter's Landing and the H Street Bridge. The riparian area in this reach is exceedingly narrow and vulnerable to damage and disturbance. Furthermore, while there is some prime habitat for Valley Elderberry Longhorn Beetle along this reach of the American River, the groups of elderberry shrubs are separated in many areas, raising the risk that the population will become fragmented. Planting elderberries to bridge those gaps would increase both the connectivity and the overall density of the population of this threatened species in Sacramento's backyard.

The Sacramento Group of the Sierra Club is highly supportive of expanding opportunities for biking and walking in Sacramento, but such projects can and must include protecting our natural environment and endangered species. Please contact us if you have any questions. Thank you for considering these comments.

Sincerely,

Barbara Leary, Chairperson
Executive Committee
Sierra Club, Sacramento Group

Cc: Adam Randolph, Project Manager, City of Sacramento Department of Public Works,
arandolph@cityofsacramento.org

From: [Stephanie Jentsch](#)
To: [Tom Buford](#)
Cc: [Adam Randolph](#)
Subject: scoping comments for Two Rivers Trail -Phase II
Date: Wednesday, June 19, 2019 12:11:28 PM

Tom Buford, Principal Planner
Community Development Department
City of Sacramento
300 Richards Boulevard
Sacramento, CA 95811

RE: Comments on the Notice of Preparation of a Proposed Draft Environmental Impact Report (DEIR) for the Two Rivers Trail Phase II Project

Dear Mr. Buford.

Thank you for the opportunity to provide comments on the scope of the DEIR for the Two Rivers Trail - Phase II Project. Please consider these comments in the DEIR's analysis of the project.

The DEIR should analyze a reduced environmental impact alternative that reduces environmental impacts by locating Section 5A of the trail on the levee top. Section 5A is a short section of trail immediately adjacent to Section 4 of the trail. Section 4 is currently proposed to be located on the levee crown. Section 5A of trail as currently proposed along the levee toe results in the vast majority of impacts to trees, vegetation and elderberry shrubs. Locating Section 5A (or even a portion of it) on the levee crown would drastically reduce the impacts of the project and preserve the nature of the trail for current users.

Given the recent decision by the American River Flood Control District (ARFCD) to allow Section 4 of the trail to be located on the levee crown due to significant constraints with locating the paved trail on the levee toe, an alternative that includes locating section 5A on the crown should not be eliminated based on the assumption that the ARFCD would not approve this design. Section 5A of the trail has similar challenges to those that resulted in the ARFCD allowing Section 4 to be located on the levee crown. Section 5A presents design challenges due to the narrow bench along this section, it will result in exorbitant costs for construction and mitigation of environmental impacts, and it presents significant permitting challenges due to the extent of impacts to habitat for the threatened Valley elderberry longhorn beetle. To better inform this alternative, the DEIR should identify the environmental impacts and mitigation costs associated with each segment of the project.

In addition Section 5A of the trail is located in an area where the U.S. Army Corps of Engineers conducted riparian plantings to mitigate for impacts associated with levee armoring and repairs conducted in 1999-2000. Any impacts to this mitigation should be disclosed and analyzed in the DEIR.

While some residents are very concerned with the privacy implications of a trail on top of the levee, I live adjacent to the levee along Section 5A and I don't expect the impacts to my property will be any greater with having the trail on top of the levee versus the bottom of

the levee. There is already significant use of the levee crown by pedestrians and cyclists and paving the trail at the toe is likely to displace current uses of the lower trail to the top of the levee. The DEIR should describe impacts to current use of the top and bottom of the levee resulting from the project.

The DEIR should also consider an alternative that leaves a portion/s of the trail unpaved in sections where paving at the toe of the levee would result in extensive environmental impacts. The current lack of pavement is not a barrier to the many commuters and recreational cyclists that currently use this area. The existing path at the levee tow and the gravel road on the levee crown are currently heavily used for bike recreation and commuting and the DEIR should acknowledge the current use of this area by cyclists as a transportation route

Thank you for your consideration of these comments.

Sincerely,
Stephanie Jentsch
River Park resident

Two Rivers Trail Phase II

City of
SACRAMENTO

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Irene Gotta

Organization: home owner

Mailing Address: 5335 Caleb Ave, Sacramento, Ca 95819

E-mail: _____

Comment: I am nearly 80 years old and have lived in River Park forever. My husband Jerry used to fish along the river. He now has Alzheimer's and lives in a care home. He would be devastated to know of the city's plans to pave the lower trail. We have spent countless hours walking the lower trail. These are some of my best memories of our time in River Park together. I know I don't have long on this earth and what I say probably won't matter but what you leave for future generations will. There are very few places in Sacramento nowadays to escape the hustle and just be able to walk in peace. This lower trail is one of those places. It is absolutely beautiful down there - the trees, birds, the elderberries, the wildlife. All will be affected by a pavement. Please don't pave the lower trail. Use those resources to improve the landscape by planting trees. Just think how many trees could be planted with that money!

Love Irene

From: [Susan](#)
To: [Tom Buford](#)
Subject: Twin Rivers Trail
Date: Wednesday, June 19, 2019 12:13:54 PM

Mr. Buford,

Safety for both bikes and pedestrians should be the first concern in planning the trail.

The top of the levee provides better sight lines for biking and a gentler incline on both sides when pedestrians will need to avoid a bike – which does happen on any bike path.

Homeowners against the levee (I'm one) do not have privacy given the top of the levee is now being used by 100s of bicyclist a week. An easy example of this is every Sunday between 7:30 -9:30 any where from 15 to 50+ bicyclist ride as part of a club. Bikes are on the levee morning, noon and night as are pedestrians there is no privacy.

Part of the levee is now being planned for the top and has created a major savings to the project. The cost of paving, maintenance and repair to all the top would be substantially less than on the lower trail. The savings could be spent on other trail improvements throughout the park or roads.

The environmental damage would be nil by going to the top.

The Flood Control Agency's main concern for paving the top of the levee is that of maintenance. They have been doing maintenance for years on the top of the levee while it's been used as a bike path. Given they will be on the top of the levee for part of the trail there is no reason not to continue it along the top. They can as the City does when doing street repair or water meteors installation put up signs letting people know the trail will be closed during certain days/hours. They can also install mobile gates barring riders from the bike path. During maintenance the lower path will not be affected and most if not all bikes can use it as they do now. The gravel makes the thin tire bikes slower but does not prevent them for being used. Having spoken with maintenance workers they concern isn't safety of the levee but the interaction with rude bikers which would be eliminated if mobile gates were used during maintenance times.

The Flood Control Agency has already gone against its own policy when at the last meeting they said trees would be provide to those residents who are located along the top of the levee that the bike path will now be on. This is more of an actual safety concern to the levee's integrity than any bike path or maintenance issue.

Speed of bikes is a concern. Please install speed bumps or turnstiles to insure bikes adhere to the speed limit as this is a heavily used pedestrian trail. Speed barriers are on every street in River Park and should be incorporated into its biking plan.

Thank you for considering my comments
Susan Hausmann
94 Sandburg Drive

Susan Hausmann

President

916.452.9213

800.835.4846

916.475.7583 cell

916.452.6020 fax

susan@fruitridge.com

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At Fruitridge, we are committed to providing exceptional customer service.

If you would like to provide feedback on any of the services you've received, I invite you

to contact me, [Susan Hausmann](#).

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Two Rivers Trail Phase II

City of
SACRAMENTO

Written comments on the NOP must be received **no later than 5 p.m. on June 19, 2019**. Comments may be submitted at this meeting, sent via email to tbuford@cityofsacramento.org, or sent via U.S. Mail (address included on front of comment card).

Name: Stuart Brewes

Organization: _____

Mailing Address: 5315 Sandburg Dr
Sac, CA 95819

E-mail: cofyco@hotmail.com

Comment: After living in River Park for 17 years,
I have come to appreciate the beauty and
natural landscape that we are lucky to
have direct access to along our riparian
habitat. As a city and country we have already
had such a negative impact to this area and
the american river to where further paving
and clearing seems pointless. Opposition
groups and residents of River Park have gone
door to door surveying with an overwhelming
consensus who are against this project.

If this project continues to completion, it
will be, on balance, at the expense
of the citizens who use it and are
impacted the most - River Park Residents.

Stuart Brewes

From: [Tom Buford](#)
To: [Adam Randolph](#); [Weiss, Ray](#)
Subject: [EXTERNAL] FW: Two Rivers Trail Project - Artificial Light at Night (ALAN) - Salmon Predation
Date: Monday, June 24, 2019 10:39:16 AM

Please see additional NOP response from Jack Sales, raising an issue that has not been raised in prior comments.

Tom

*Tom Buford, Manager
Environmental Planning Services
(916) 799-1531*

From: jesales@surewest.net <jesales@surewest.net>
Sent: Saturday, June 22, 2019 9:31 PM
To: Tom Buford <TBuford@cityofsacramento.org>; Leighann Moffitt <moffittl@saccounty.net>; Tim Hawkins <hawkinst@saccounty.net>
Cc: Supervisor Frost <sfrost@saccounty.net>; Supervisor Peters <susanpeters@saccounty.net>; Supervisor Serna <SupervisorSerna@saccounty.net>; Erin Teague <eteague@cityofsacramento.org>; David Gonsalves <DGonsalves@cityofsacramento.org>
Subject: Two Rivers Trail Project - Artificial Light at Night (ALAN) - Salmon Predation

Greeting Tom, all

It never occurred to me until moments ago.

Reference -- Two Rivers Trail Project

Could trails on the American River ever be lit spewing Artificial Light at Night (ALAN) into a sensitive environment?
The Park Way Plan includes some "no lighting" provisions.

Should or does the EIR for the Two Rivers Trail Project included a "no lighting" statement.

I continue to follow the Artificial Light at Night and Salmon Predation issue.

I continue to get updates from fisheries biologists like Roger A. Tabor, USFWS.

The American River has taken on a new importance regarding Artificial Light at Night and Salmon Predation.

Because of my concerns I have begone attending the Water Forum Fisheries and Instream Habitat (FISH) Working Group.

The light at night artificial or not IS part on the instream habitat of salmon and other fish (predators).

It has been shown that juvenile winter-run Chinook salmon use the American River as rearing habitat.

On May 16, 1989, the California Fish and Game Commission listed the SR winter-run Chinook Salmon as endangered under the California Endangered Species Act (CESA). Sacramento River winter-run Chinook Salmon ESU was listed as threatened under the Federal Endangered Species Act on August 4, 1989 and this was subsequently updated to endangered on January 4, 1994.

At the March 2, 2017 Interagency Ecological Program (IEP) workshop the following was presented --

Revealing the diverse rearing habitats of Winter-run Chinook Salmon across contrasting hydrologic regimes

By Maya Friedman, Corey Phillis, Anna Sturrock, Rachel Johnson, Peter Weber, Eric Danner

See also, Endangered winter-run Chinook salmon rely on diverse rearing habitats in a highly altered landscape, Corey Phillis, Anna Sturrock, Rachel Johnson, Peter Weber

<https://www.sciencedirect.com/science/article/pii/S0006320717306742>

The American River is part of that "diverse rearing habitats", show through otolith isotope data as noted above.

I don't know if the American River has been designated as critical habitat for winter-run Chinook salmon but it should be.

Because Sacramento City/County is at the confluence of the American and Sacramento Rivers the same concern should extend to the Sacramento River and the Sacramento Water Front.

The same Endangered juvenile winter-run Chinook salmon present in the American are present in the Sacramento River.

I do know that Artificial Light at Night creates an increased risk of predation on juvenile salmon.

Further ANY project Environmental Review in Sacramento or Sacramento County should include REAL assessment and evaluation of Artificial Light at Night as the impacts extend far beyond a project site.

We evaluate sound in EIRs but sound dissipates far sooner than light which travels hundreds of miles.

Sound may have minimal impacts yet light levels at night are critical and can result in predation and other impacts (see wildlife link below)

Some recent references (in case it did not forward to you).

<https://www.knkx.org/post/light-pollution-identified-potential-issue-threatened-puget-sound-chinook-salmon>
<http://www.darksky.org/can-salmon-help-save-the-night-sky/>
<https://fishbio.com/field-notes/the-fish-report/like-dark-light-pollution-salmon-survival>
<https://www.nature.com/articles/d41586-018-00665-7>

Finally do a search for Artificial Light at Night (ALAN), research in on going (over 200 related papers this year) and the pace is increasing.

Regards

Jack Sales

5978 Woodbriar Way

Citrus Heights, California 95621

Telephone: 916-726-7405

Mobile phone: 916-747-7405

IDA California, IESNA, ECOS, Habitat 2020, ECOS Sacramento, SARSAS

B.2 Notice of Preparation



300 Richards Boulevard, Third Floor
Sacramento, CA 95811

DATE: May 21, 2019

TO: Interested Persons

FROM: Tom Buford, Principal Planner
Community Development Department

RE: **NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT
REPORT AND SCOPING MEETING FOR THE TWO RIVERS TRAIL
PHASE II PROJECT (SCH 2018102058)**

COMMENT PERIOD: May 21st 2019 to June 19th 2019

**SCOPING MEETING: Saturday, June 8, 2019, from 10 a.m. to Noon
Fremont Presbyterian Church – Ferguson Hall
5770 Carlson Drive, Sacramento**

INTRODUCTION

Pursuant to section 21166 of the California Public Resources Code and section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the City of Sacramento is the Lead Agency for preparation of an Environmental Impact Report (EIR) for the proposed Two Rivers Trail Phase II project (proposed project).

The EIR is being prepared in compliance with the California Environmental Quality Act. The City, as Lead Agency, is issuing this Notice of Preparation (NOP) to inform trustee and responsible agencies, as well as the public, of its decision to prepare an EIR. The purpose of the NOP is to provide information describing the project and its potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the EIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The EIR will provide an evaluation of potential environmental impacts associated with development of the project. The proposed project location, description, and

environmental issue areas that may be affected by development of the proposed project are described below. The EIR will evaluate potentially significant environmental impacts of the proposed project, on both a direct, indirect, and cumulative basis; identify mitigation measures that may be feasible to lessen or avoid such impacts; and identify alternatives that may lessen one or more potentially significant impacts to the proposed project.

PROJECT LOCATION AND DESCRIPTION

The proposed project would construct the remainder of Phase II of the Two Rivers Trail by extending the Class 1 bicycle and pedestrian trail on the south bank of the American River west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge (see **Figure 1**). The approximately 3.4 miles of new Class 1 trail, located primarily along the waterside toe of the levee, would generally consist of an 8-ft-wide paved path with a 2-ft-wide compacted shoulder on the inner side and a similar 4- to 6-ft-wide shoulder on the waterside to provide space for walking and jogging adjacent to the paved portion of the trail. The trail would be engineered to be load-bearing to accommodate maintenance and emergency vehicles.

A portion of the trail alignment west of Sutter's Landing Regional Park may be within an area that was the site of an abandoned landfill included on the State Cortese List (Government Code Section 65962.5[a]).

PROJECT OBJECTIVES

The objectives of the proposed project are to:

- Provide a vital recreation link between the Jedediah Smith Trail on the north side of the Parkway, the Sacramento River Parkway, the Sacramento Northern Bikeway Trail, the future Ueda Parkway trails, and the 20th Street bike connection to the Central City;
- Provide alternative transportation access for commuters and residents in the eastern part of the City, California State University Sacramento (CSUS), Central City, North Sacramento, East Sacramento, and Richards Boulevard area;
- Provide opportunities for educating trail users through interpretive signage, establishing a connection to the river, and the Parkway;
- Provide an acceptable project to all authoritative agencies;
- Complete the project in a manner that minimizes environmental impacts to the Parkway, given the proposed project's location within the environmentally sensitive Parkway; and
- Where feasible, design trail access points to comply with the requirements of

the Americans with Disabilities Act (ADA).

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The City prepared an Initial Study and Environmental Checklist for the proposed project in October 2018 and has received comments on the Initial Study. Based on the impact conclusions (minimal or no impact) for several resource topics (i.e., Agricultural and Forestry Resources) provided in the Initial Study Checklist and comments received on the Initial Study, the City intends to exclude several topic areas from the EIR, including Agricultural and Forestry Resources, Air Quality, Energy, Greenhouse Gas Emissions, Mineral Resources, Population and Housing, and Utilities.

Based on the analysis in the Initial Study and the comments received on the Initial Study, the City intends to prepare an EIR that is focused on addressing the following environmental topics:

Aesthetics	Biological Resources	Cultural Resources
Geology/Soils	Hazards	Hydrology/Water Quality
Land Use/Planning	Noise	Public Services
Recreation	Transportation	Tribal Cultural Resources
Wildfire		

Environmental documents related to the project, including the Initial Study and comments received on the Initial Study, may be reviewed at the office of the Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, California 95811 during public counter hours, and on the Community Development Department web site at:

<http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports>

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed project should be directed to the environmental project manager at the following address by 5:00 p.m. on June 19, 2019. Please include the contact person's full name and address in order for staff to respond appropriately:

Tom Buford, Principal Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811
Telephone: (916) 808-7931
E-mail: tbuford@cityofsacramento.org

SCOPING MEETING

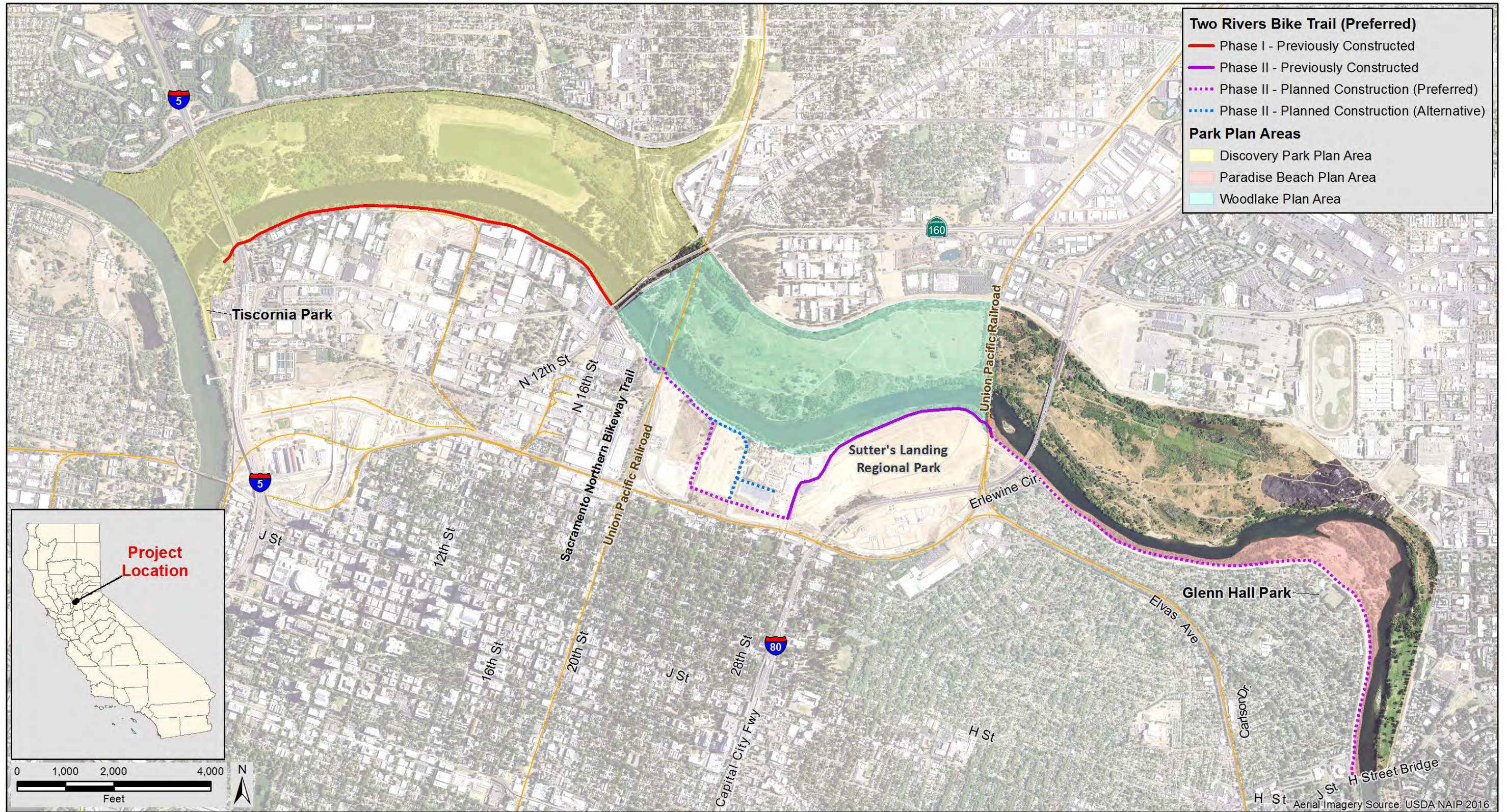
A public scoping meeting will be held on Saturday, June 8, 2019, from 10:00 a.m. to Noon at the following location:

Fremont Presbyterian Church – Ferguson Hall
5770 Carlson Drive
Sacramento, CA 95819

Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR.

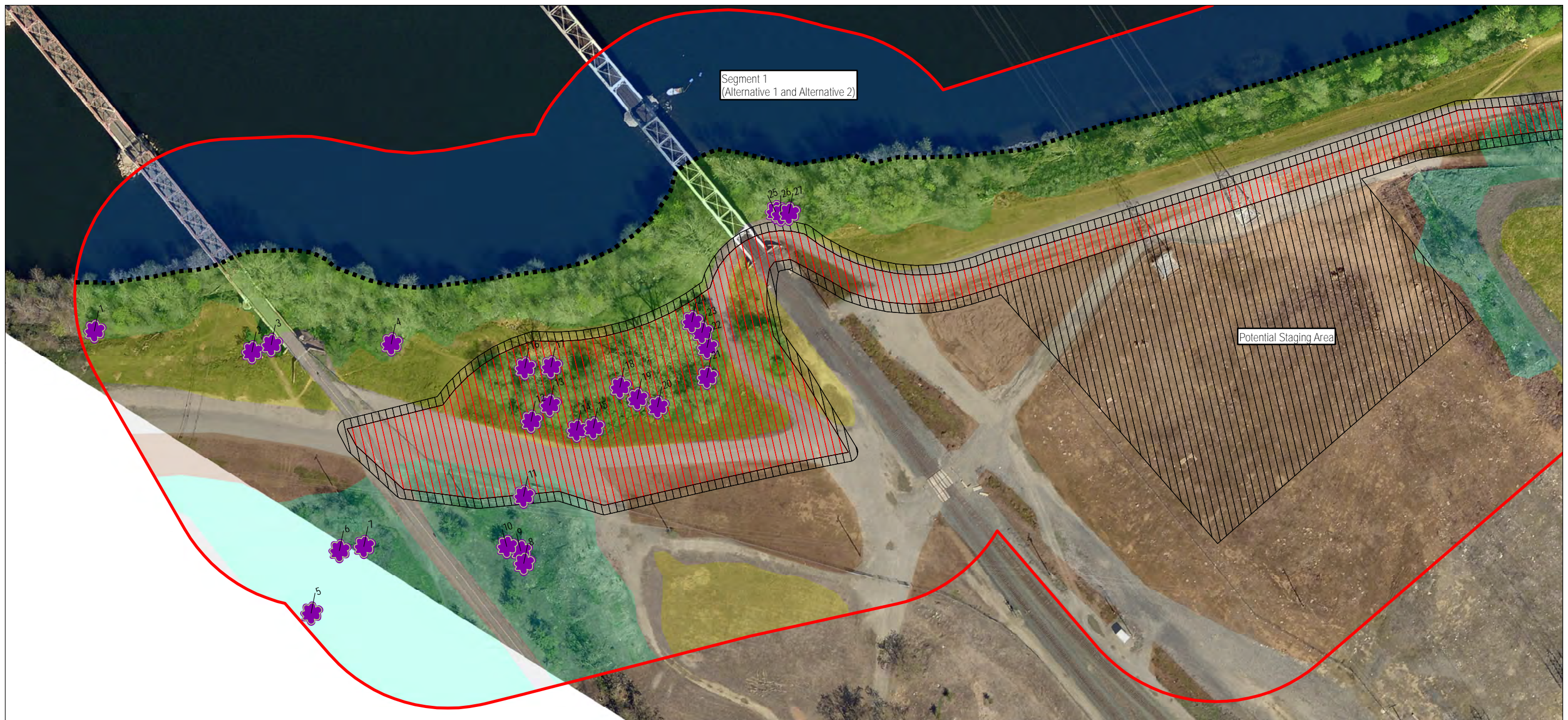
The scoping meeting will be held in an open house format. Following a brief presentation on the status of the project, informational exhibits and project team members will be available throughout the meeting for one-on-one discussions. Forms for submitting written comments will be available. Written comments of any length may be submitted; however, there will not be a formal presentation or panel to receive oral public comments.

Figure 1. Project Location Map



Appendix C. Biological Resources

C.1 Pages from CML 5002(155) NES Appendices



Segment 1
(Alternative 1 and Alternative 2)

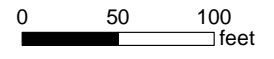
Potential Staging Area

TWO RIVERS TRAIL PHASE II PROJECT

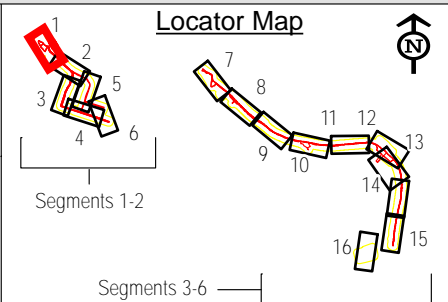
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|-----------------------------|----------------------------------|--|--------------------------------|
| Biological Study Area (BSA) | Vegetation Classification | Trees (Limited to trees in the Project Footprint)² | Elderberry Shrubs ¹ |
| Permanent Impacts | Annual Grassland | Black Locust | Cottonwood |
| Temporary Impacts | Mixed Scrub | Black Walnut | Sycamore |
| OHWM | Riverine | Box Elder | Tree of Heaven |
| | Ruderal | Oak | Willow |
| | Urban | | |
| | Valley Foothill Riparian | | |

¹ Elderberry shrubs mapped in the Project Footprint and within 165-feet of the Project Footprint.

² Trees were only mapped within the Project Footprint in Segments 3-6



Sources:
 - City of Sacramento, 2018
 - AWE 2018
 - ESRI Aerial Imagery, August 9, 2017





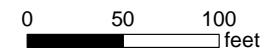
TWO RIVERS TRAIL PHASE II PROJECT

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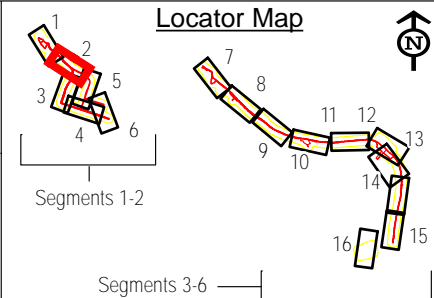
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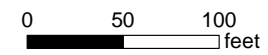
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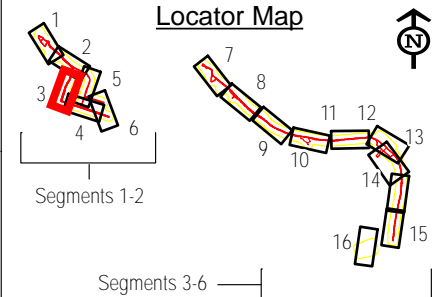
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- Willow

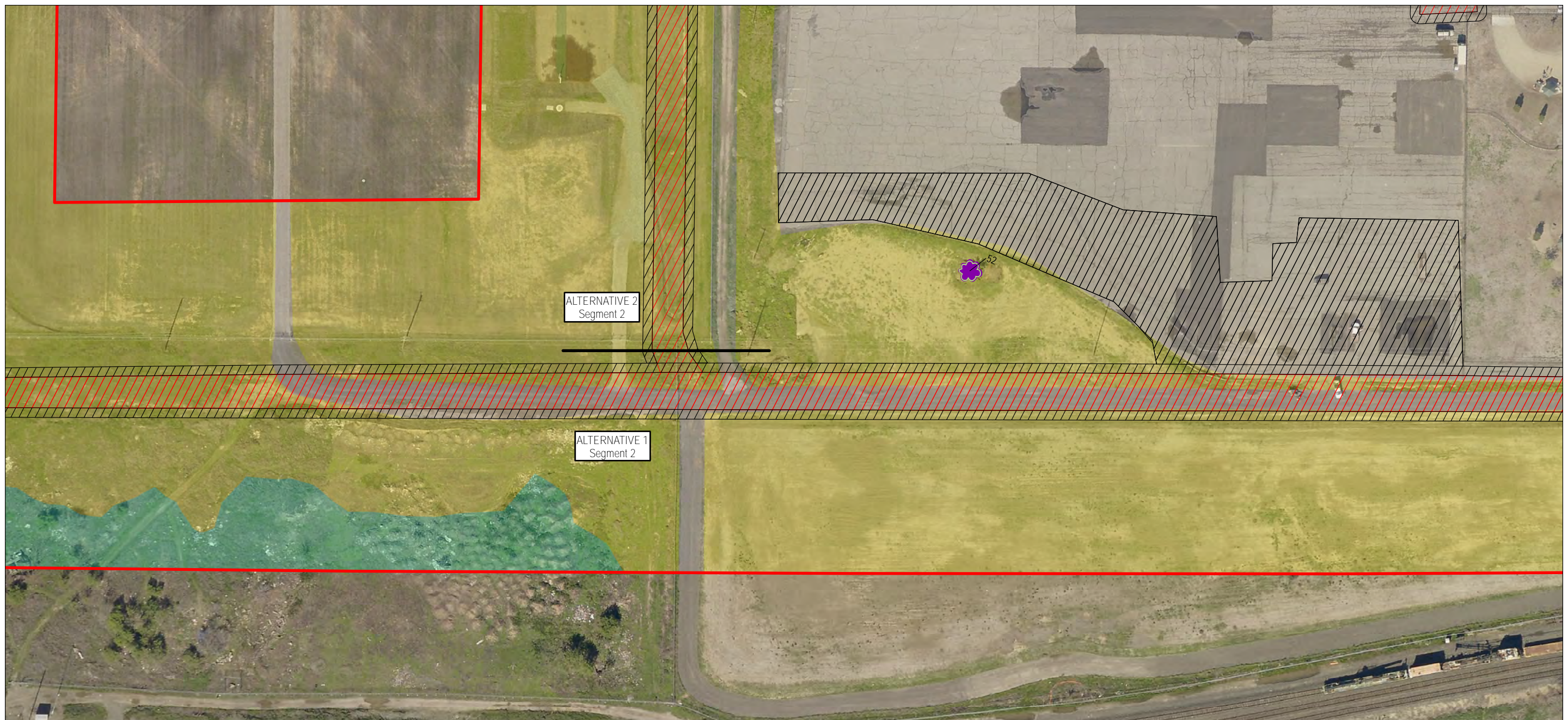
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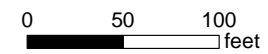
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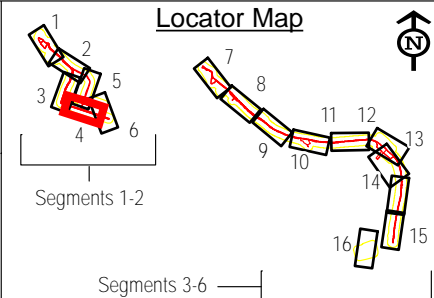
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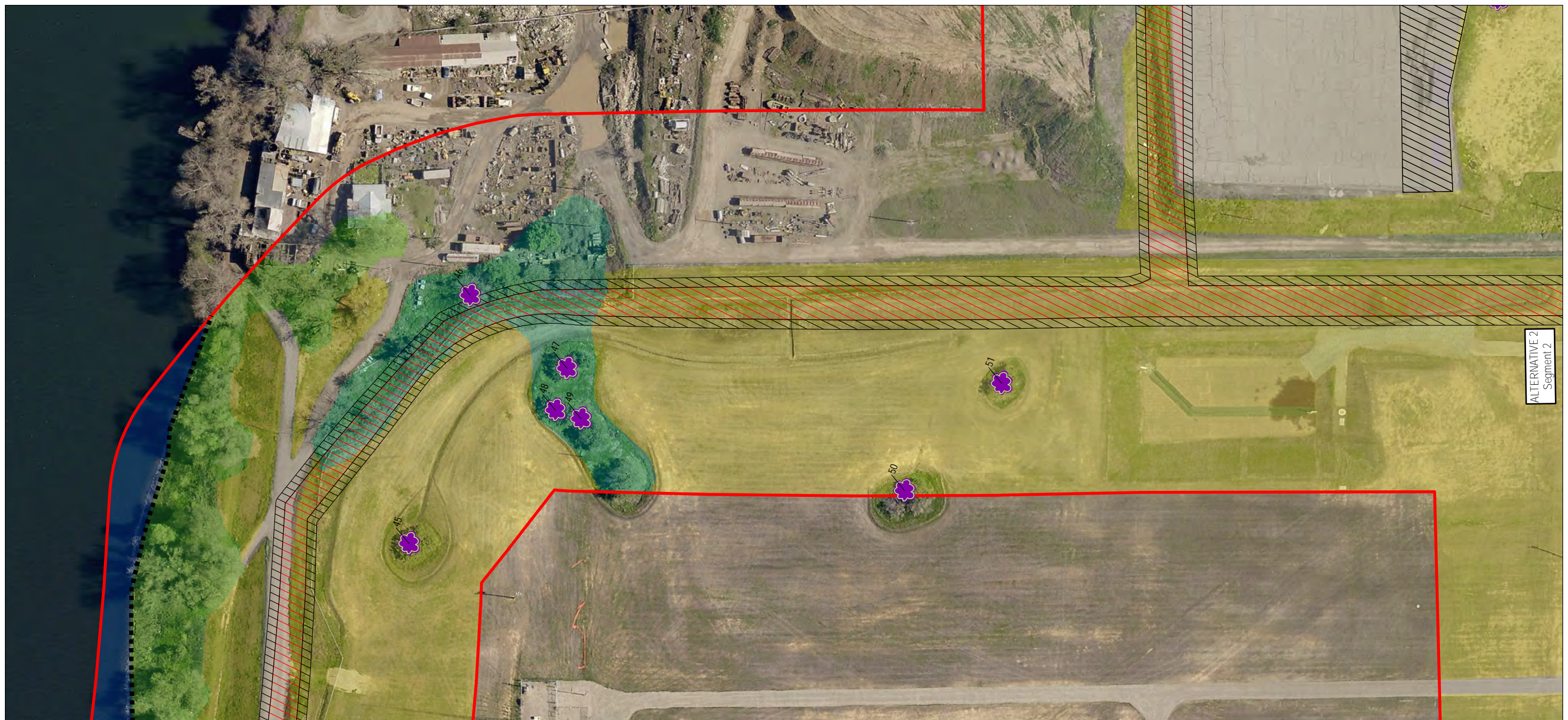
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ALTERNATIVE 2
Segment 2

TWO RIVERS TRAIL PHASE II PROJECT

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- OHWM
- Elderberry Shrubs¹

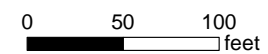
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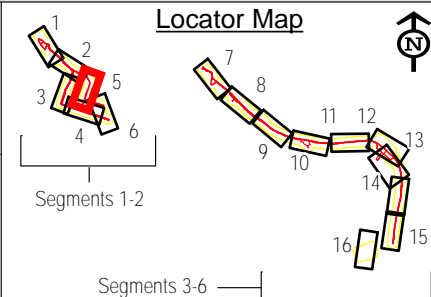
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Segments 1-2

Segments 3-6



TWO RIVERS TRAIL PHASE II PROJECT

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- OHWM
- Elderberry Shrubs¹

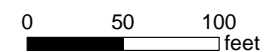
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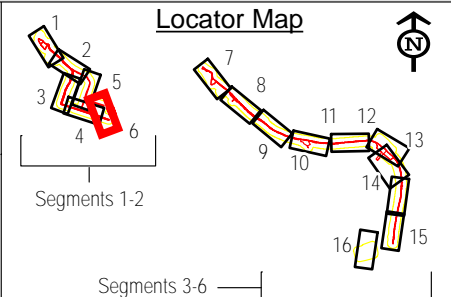
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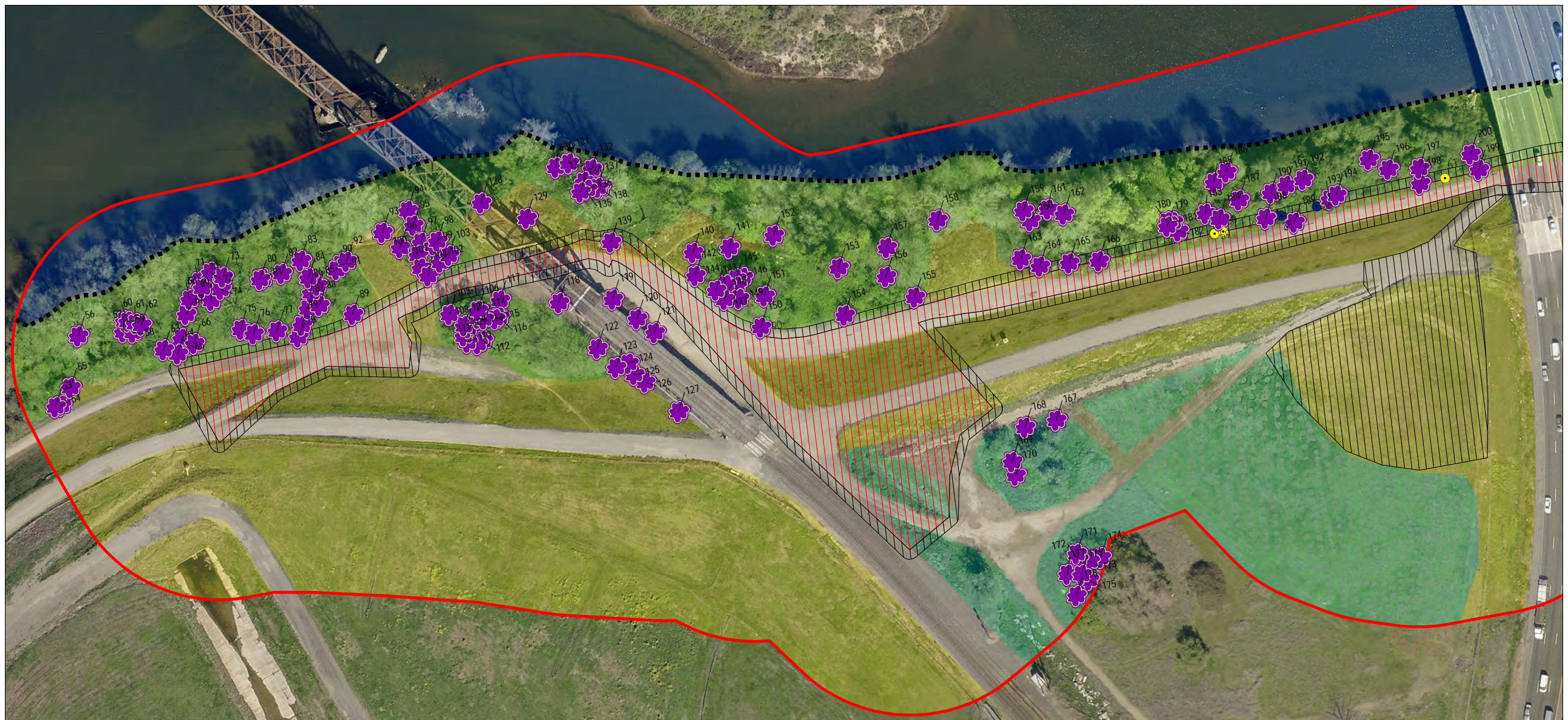
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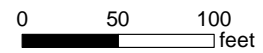
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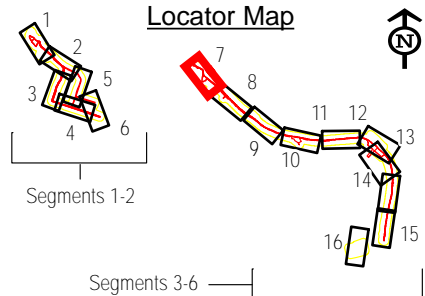
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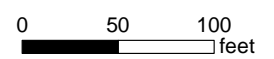


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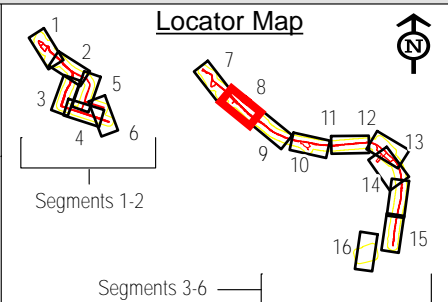
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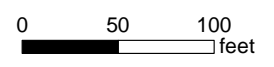


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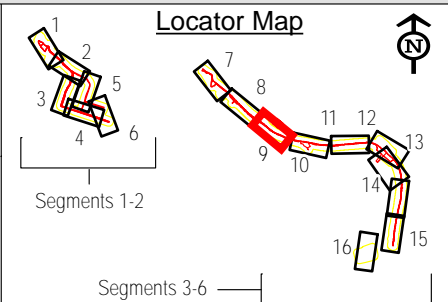
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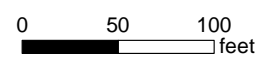


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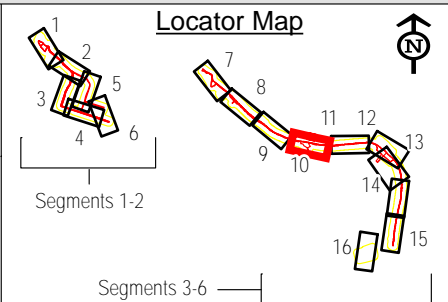
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








Sources:
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





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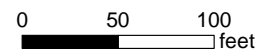
-  Biological Study Area (BSA)
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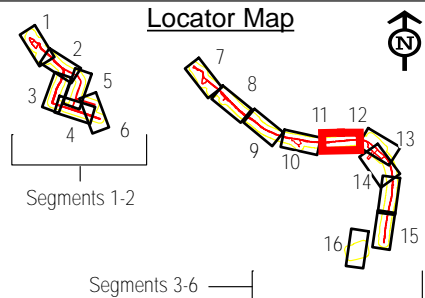
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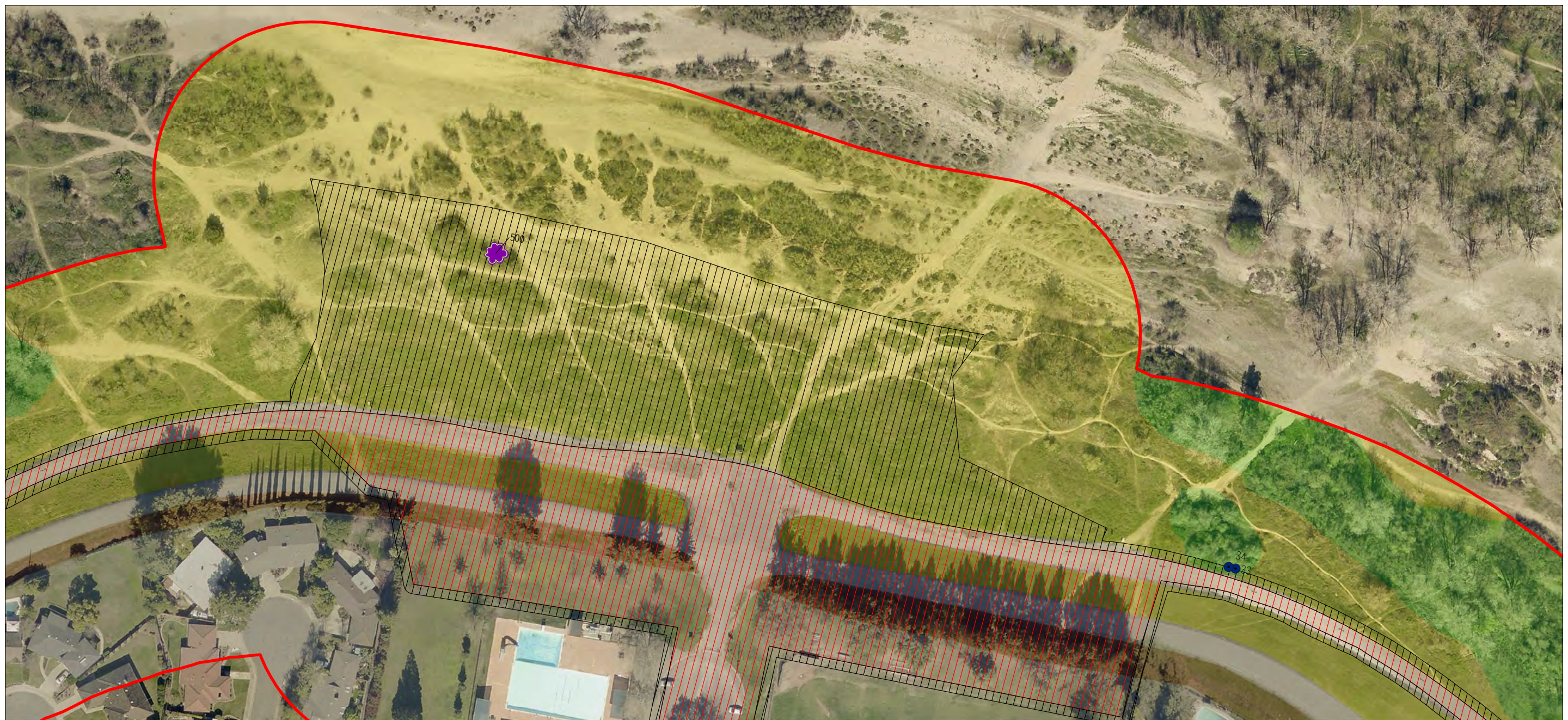
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- OHWM
- Elderberry Shrubs¹

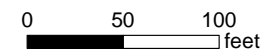
- Vegetation Classification**
- Annual Grassland
 - Mixed Scrub
 - Riverine
 - Ruderal
 - Urban
 - Valley Foothill Riparian

- Trees (Limited to trees in the Project Footprint)²**
- Black Locust
 - Black Walnut
 - Box Elder
 - Oak

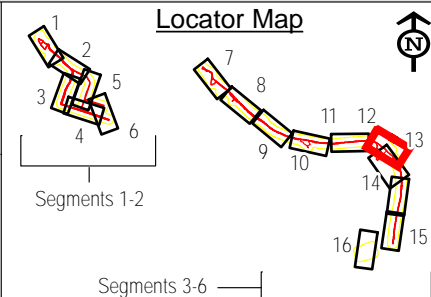
- Cottonwood
- Sycamore
- Tree of Heaven
- Willow

¹ Elderberry shrubs mapped in the Project Footprint and within 165-feet of the Project Footprint.

² Trees were only mapped within the Project Footprint in Segments 3-6



Sources:
 - City of Sacramento, 2018
 - AWE 2018
 - ESRI Aerial Imagery, August 9, 2017



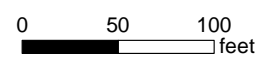


TWO RIVERS TRAIL PHASE II PROJECT

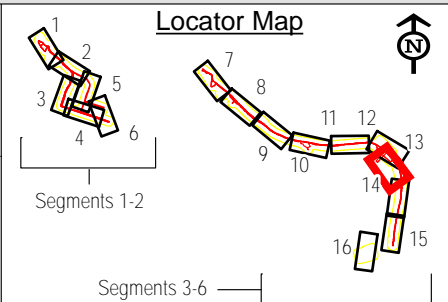
- | | | | |
|--------------------------------|----------------------------------|--|----------------|
| Biological Study Area (BSA) | Vegetation Classification | Trees (Limited to trees in the Project Footprint)² | Cottonwood |
| Permanent Impacts | Annual Grassland | Black Locust | Sycamore |
| Temporary Impacts | Mixed Scrub | Black Walnut | Tree of Heaven |
| OHWM | Riverine | Box Elder | Willow |
| Elderberry Shrubs ¹ | Ruderal | Oak | |
| | Urban | | |
| | Valley Foothill Riparian | | |

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





Sources:
 - City of Sacramento, 2018
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TWO RIVERS TRAIL PHASE II PROJECT

-  Biological Study Area (BSA)
-  Permanent Impacts
-  Temporary Impacts
-  OHWM
-  Elderberry Shrubs¹

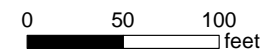
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 -  Black Walnut
 -  Box Elder
 -  Oak

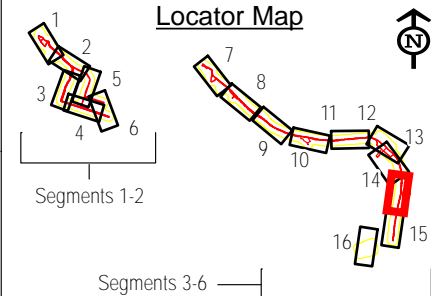
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










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TWO RIVERS TRAIL PHASE II PROJECT

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-  Permanent Impacts
-  Temporary Impacts
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-  Elderberry Shrubs¹

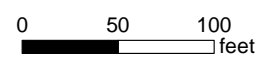
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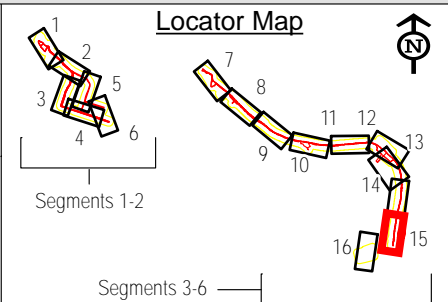
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 - City of Sacramento, 2018
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TWO RIVERS TRAIL PHASE II PROJECT

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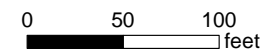
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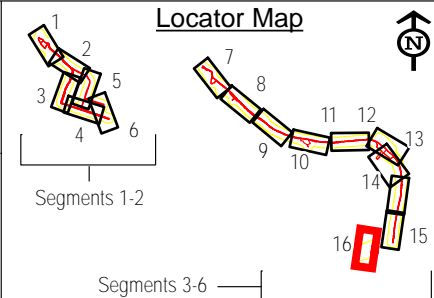
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Sources:
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 - ESRI Aerial Imagery, August 9, 2017



**C.2 Pages from CML 5002(155) NES
Appendices_06_2019**

APPENDIX A – SPECIES LISTS



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

March 27, 2018

Consultation Code: 08ESMF00-2018-SLI-1694

Event Code: 08ESMF00-2018-E-04901

Project Name: Two Rivers Trail Phase 2 Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2018-SLI-1694

Event Code: 08ESMF00-2018-E-04901

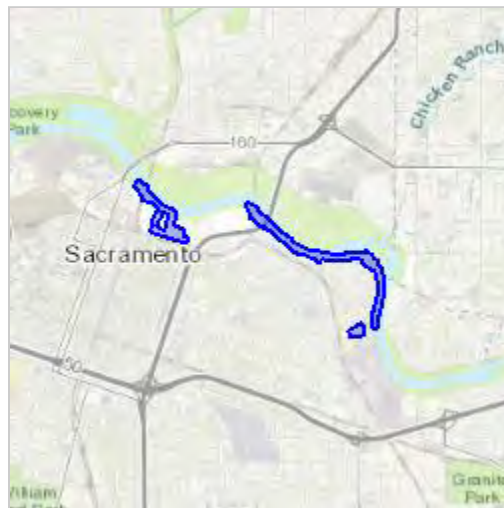
Project Name: Two Rivers Trail Phase 2 Project

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: Caltrans and the City of Sacramento are proposing to construct the Two Rivers Trail Phase II Project along the south side of the American River within the City of Sacramento, California.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.58854915189428N121.46930974784055W>



Counties: Sacramento, CA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Quad Name **Sacramento East**

Quad Number **38121-E4**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) - **X**

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat - **X**

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat - **X**

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH - **X**
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

MMPA Cetaceans -
MMPA Pinnipeds -



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Sacramento East (3812154) OR Carmichael (3812153) OR Citrus Heights (3812163) OR Clarksburg (3812145) OR Elk Grove (3812143) OR Florin (3812144) OR Rio Linda (3812164) OR Sacramento West (3812155) OR Taylor Monument (3812165))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<i>Andrena subapasta</i> An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G2G3	S1	SSC
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Carex comosa</i> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Cuscuta obtusiflora var. glandulosa</i> Peruvian dodder	PDCUS01111	None	None	G5T4T5	SH	2B.2
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Elderberry Savanna</i> Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<i>Great Valley Valley Oak Riparian Forest</i> Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Juglans hindsii</i> Northern California black walnut	PDJUG02040	None	None	G1	S1	1B.1
<i>Juncus leiospermus var. ahartii</i> Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1
<i>Lepidium latipes var. heckardii</i> Heckard's pepper-grass	PDBRA1M0K1	None	None	G4T1	S1	1B.2
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Lilaeopsis masonii</i> Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Melospiza melodia</i> song sparrow ("Modesto" population)	ABPBXA3010	None	None	G5	S3?	SSC
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Northern Volcanic Mud Flow Vernal Pool</i> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Oncorhynchus tshawytscha pop. 6</i> chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
<i>Oncorhynchus tshawytscha pop. 7</i> chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5	S1	
<i>Orcuttia tenuis</i> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<i>Orcuttia viscida</i> Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	GNR	S3	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	SSC
<i>Symphotrichum lentum</i> Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 63

Plant List

Inventory of Rare and Endangered Plants

16 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B], Found in Quads 3812165, 3812164, 3812163, 3812155, 3812154, 3812153, 3812145 3812144 and 3812143;

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Display Photos](#)

Scientific Name	Common Name	Family	Lifform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	2B.1	S2	G5
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	Jul-Oct	2B.2	SH	G5T4T5
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
Hibiscus lasiocarpus var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	Apr-May	1B.1	S1	G1
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	1B.2	S1	G2T1
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	Mar-May	1B.2	S1	G4T1
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	1B.1	S2	G2
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	1B.1	S2	G2
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	1B.1	S1	G1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	1B.2	S2	G2
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2

Suggested Citation

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**C.3 Pages from CML 5002(155) Sacramento Two
Rivers NES_06 2019**

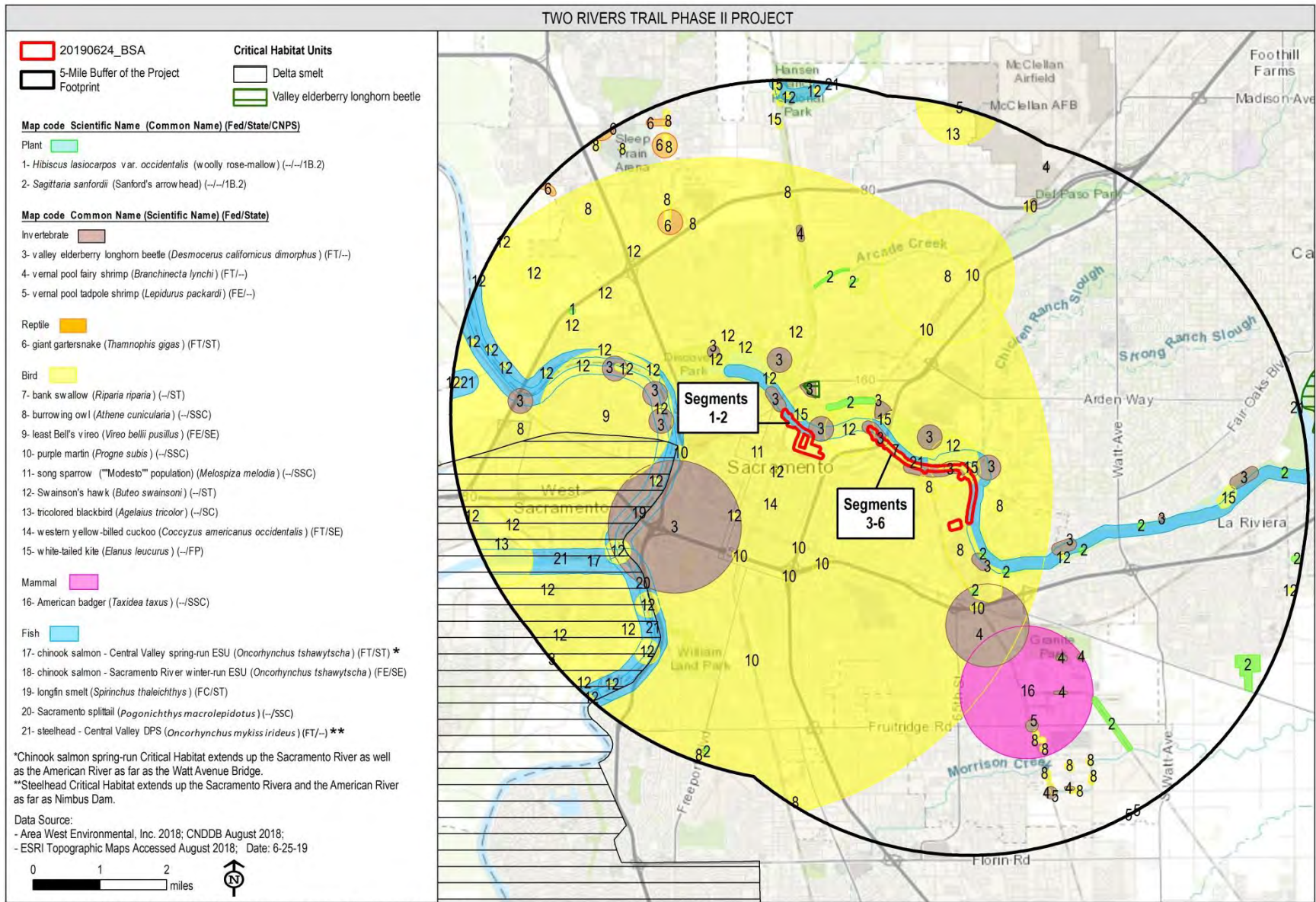


Figure 3-4. CNDDDB Occurrences Within 5-miles

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Table 3-4. Special-status Plant Species with the Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ¹		Distribution	Habitat Association	Identification Period	Species Present / Absent	Survey Results/Rationale ²
	Federal/State	CNPS					
Ferris' milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	--/--	1B.1	Sacramento Valley.	Vernally mesic meadows and seeps, as well as subalkaline flat valley and foothill grasslands. 6 - 250 feet amsl.	April - May	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Bristly sedge <i>Carex comosa</i>	--/--	2B.1	Known occurrences in Contra Costa, Lake, Mendocino, Sacramento, San Bernardino, Santa Cruz, San Francisco, Shasta, San Joaquin, and Sonoma counties.	Coastal prairie, marshes and swamps (lake margins), and valley and foothill grasslands. 0 - 2,050 feet amsl.	May - September	Absent	Suitable habitat for this species is present within the BSA (annual grasslands). This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	--/--	2B.2	Known from only 6 occurrences throughout California in Butte, Los Angeles, Merced, Sacramento (unverified), San Bernardino, Sonoma, and Sutter counties.	Freshwater marshes and swamps. 50 - 900 feet amsl.	July - October	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Dwarf downingia <i>Downingia pusilla</i>	--/--	2B.2	Known occurrences in Amador, Fresno, Merced, Napa, Placer, Sacramento, San Joaquin, Solano, Sonoma, Stanislaus, Tehama, and Yuba counties.	Found in valley and foothill grassland with mesic soils and vernal pools. 0 - 1,460 feet amsl.	March - May	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.

Common and Scientific Name	Legal Status ¹		Distribution	Habitat Association	Identification Period	Species Present / Absent	Survey Results/Rationale ²
	Federal/State	CNPS					
Bogg's Lake hedge-hyssop <i>Gratiola heterosepala</i>	--/SE	1B.2	Known occurrences in Fresno, Lake, Lassen, Madera, Merced, Modoc, Placer, Sacramento, Shasta, Siskiyou, San Joaquin, Solano, Sonoma, and Tehama counties.	Clay soil in marshes and swamps (lake margins) and vernal pools. 30 - 7,800 feet amsl.	April - August	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	--/--	1B.2	Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, and Yolo counties.	Often in riprap on sides of levees in marshes and swamps (freshwater). 0 - 390 feet amsl.	June - September	Absent	Suitable habitat for this species is may be present within the BSA (riprap along the American River), although no marsh habitat was observed. This species was not observed during surveys conducted within the species' identification period. There is 1 CNDDDB record within a 5-mile radius of the BSA.
Northern California black walnut <i>Juglans hindsii</i>	--/--	1B.1	The current presumed extent of native trees occurs only within Contra Costa, Napa, and possibly Lake counties. Considered extirpated in Sacramento, Solano, and Yolo counties.	Riparian forest and riparian woodland. 0 - 1,445 feet amsl.	April - May	Absent	Suitable habitat for this species is present in the BSA and this species was observed growing within riparian woodlands along the American River during surveys. However only remaining native stands are considered listed by CNPS. Since the native species is extirpated from Sacramento County (CNPS 2018b), it is unlikely that the black walnut trees observed within the BSA belong to a remaining native stand.

Common and Scientific Name	Legal Status ¹		Distribution	Habitat Association	Identification Period	Species Present / Absent	Survey Results/Rationale ²
	Federal/State	CNPS					
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	--/--	1B.2	Sacramento Valley in Butte, Calaveras, Placer, Sacramento, Tehama, and Yuba counties.	Valley and foothill grasslands with mesic soils. 95 - 750 feet amsl.	March - May	Absent	No suitable habitat for this species is present within the BSA and the BSA is below this species elevational range. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Legenere <i>Legenere limosa</i>	--/--	1B.1	Known occurrences in Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Stanislaus, Sonoma, Tehama, and Yuba counties.	Vernal pools. 0 - 2,885 feet amsl.	April - June	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Heckard's pepper-grass <i>Lepidium latipes</i> var. <i>heckardii</i>	--/--	1B.2	Glenn, Merced, Sacramento, Solano, and Yolo counties.	Alkaline flats in valley and foothill grasslands. 6 - 650 feet amsl.	March - May	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records for within a 5-mile radius of the BSA.
Mason's lilaeopsis <i>Lilaeopsis masonii</i>	--/SR	1B.1	Alameda, Contra Costa, Marin, Napa, Sacramento, San Joaquin, Solano, and Yolo counties.	Marshes and swamps (freshwater or brackish) and riparian scrub. 0 - 32 feet amsl.	April - November	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.

Common and Scientific Name	Legal Status ¹		Distribution	Habitat Association	Identification Period	Species Present / Absent	Survey Results/Rationale ²
	Federal/State	CNPS					
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT/SE	1B.1	Northern Sacramento Valley, Pit River Valley; isolated populations in Lake and Sacramento counties.	Often gravelly soil in vernal pools. 115 - 5,775 feet amsl.	May - October	Absent	No suitable habitat for this species is present within the BSA and the BSA is below this species elevational range. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA. <i>No effect</i>
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE/SE	1B.1	Sacramento county.	Vernal pools. 95 - 325 feet amsl.	April - September	Absent	No suitable habitat for this species is present within the BSA and the BSA is below this species elevational range. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA. <i>No effect</i>
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--	1B.2	Scattered locality throughout the Central Valley and adjacent foothills.	Marshes and swamps (assorted shallow freshwater). 0 - 2,130 feet amsl.	May - November	Absent	Suitable habitat for this species may be present within the BSA along the river margin, although no marsh habitat was observed. A known occurrence is located directly across the American River from the BSA (CNDDDB occurrence #26). This species was not observed during surveys conducted within the species' identification period. There are 7 CNDDDB records within a 5-mile radius of the BSA.

Common and Scientific Name	Legal Status ¹		Distribution	Habitat Association	Identification Period	Species Present / Absent	Survey Results/Rationale ²
	Federal/State	CNPS					
Suisun Marsh aster <i>Symphotrichum lentum</i>	--/--	1B.2	Contra Costa, Napa, Sacramento, San Joaquin, Solano, and Yolo counties.	Marshes and swamps (brackish and freshwater). 0 - 9 feet amsl.	May - November	Absent	The BSA is above this species elevational range. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.
Saline clover <i>Trifolium hydrophilum</i>	--/--	1B.2	Many sites likely extirpated. Found mostly in the East Bay region.	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. 0 - 985 feet amsl.	April - June	Absent	The BSA is outside this species current range. This species was not observed during surveys conducted within the species' identification period. There are no CNDDDB records within a 5-mile radius of the BSA.

¹ Status explanations:

-- = no listing.

Federal

FE = Federal Endangered
FT = Federal Threatened

State

SE = State Endangered
SR = State Rare

California Native Plant Society

- 1B = List 1B species: rare, threatened, or endangered in California and elsewhere.
- 2B = List 2B species: rare, threatened, or endangered in California but more common elsewhere.
- 0.1 = Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- 0.2 = Moderately threatened in California (20%-80% occurrences threatened/ moderate degree and immediacy of threat)

²Rationale includes an effects determination under the FESA for all federally listed species

Source: USFWS 2018, CDFW 2018, and CNPS 2018

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Table 3-5. Special-status Wildlife with the Potential to Occur in the Vicinity of the Project

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
<i>Invertebrates</i>						
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	--	Central Valley, Central and South Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County.	Common in vernal pools and seasonal wetlands; also found in sandstone rock outcrop pools.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 1 mile south of the eastern terminus of the BSA. <i>No effect</i>
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	--	Central Valley and surrounding foothills below 500-foot elevations.	Dependent on elderberry shrubs (host plant) as a food plant; potential habitat is shrubs with stems 1 inch in diameter within Central Valley.	Present	Suitable habitat is present within the BSA, and elderberry shrubs were confirmed to be present during the wildlife surveys. Evidence (exit holes) of the presence of valley elderberry longhorn beetle was identified on several shrubs within the BSA. There are several CNDDDB records within a 5-mile radius of the BSA. Critical habitat for this species is approximately 0.45 miles northeast of the BSA. <i>May affect, likely to adversely affect</i>
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	FE	--	Central Valley from Shasta County south to Merced County.	Vernal pools, vernal lakes, and other seasonal wetlands.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 3 miles south of the eastern terminus of the BSA. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Amphibians						
California tiger salamander <i>Ambystoma californiense</i>	FT	ST/ SSC	Central Valley, including Sierra Nevada foothills up to 1,500 feet and Coastal regions from Butte County south to Santa Barbara County.	Annual grasslands and valley-foothill woodlands; breeds in seasonal wetlands such as vernal pools and swales. Burrows in underground refugia such as ground squirrel holes.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA. No effect
California red-legged frog <i>Rana draytonii</i>	FT	SSC	Along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County. Usually occurs below 4,000 feet above mean sea level.	Permanent and semi-permanent aquatic habitats, such as creeks and cold water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods.	Absent	The BSA is outside of the known range for this species, and it has been extirpated from the valley floor. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA. No effect
Western spadefoot <i>Spea hammondi</i>	--	SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California.	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
<i>Reptiles</i>						
Western pond turtle <i>Actinemys marmorata</i>	--	SSC	Populations extend throughout the coast and Central Valley of California.	Thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation, below 6,000 feet in elevation. Require soil up to 4 inches deep for egg-laying. Females will travel overland up to approximately 325 feet to lay eggs.	Present	Suitable aquatic and upland habitat for this species is present within the BSA. This species could occur in the American River basking or foraging along the banks. This species could seek refuge or lay eggs along the bank of the river. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.
Giant garter snake <i>Thamnophis gigas</i>	FT	ST	Central Valley from Fresno north to the Gridley/Sutter Buttes area; has been extirpated from areas south of Fresno.	Sloughs, canals, and other small water-ways where there is a prey base of small fish and amphibians; require grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter.	Absent	No suitable habitat for this species is present within the BSA. The American River is a relatively fast flowing stream with riparian wetlands. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 3.2 miles northwest of the BSA. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
<i>Birds</i>						
Tricolored blackbird <i>Agelaius tricolor</i>	--	ST	Largely endemic to California; permanent residents in the Central Valley from Butte County to Kern County; at scattered coastal locations from Marin County south to San Diego County; breeds at scattered locations in Lake, Sonoma, and Solano counties; rare nester in Siskiyou, Modoc, and Lassen counties. Sacramento-San Joaquin Valleys and low foothills of coast ranges and Sierra Nevada.	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields; nesting habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony; requires large foraging areas, including marshes, pastures, agricultural wetlands, dairies, and feedlots, where insect prey is abundant.	Absent	No suitable habitat for this species is present within the BSA. The portion of the American River in the BSA does not support emergent marsh habitat or vegetation. Blackberries thickets located in the riparian areas within the BSA are located along a busy trail and would not provide be habitat for this species. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 4.2 miles southwest of the BSA at the Port of Sacramento.
Golden eagle <i>Aquila chrysaetos</i>	--	FP	Foothills and mountains throughout California; uncommon nonbreeding visitor to lowlands such as the Central Valley. Concentrated in the Central Valley and coastal valleys.	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak wood-lands with plentiful medium and large-sized mammals for prey.	Absent	No suitable habitat for this species is present within the BSA. The BSA is located in the wintering range of this species and is not expected to nest in the BSA. Additionally, the BSA is in a large metropolitan area with limited expansive foraging habitat for this species. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Burrowing owl <i>Athene cunicularia</i>	--	SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast. Central and southern coastal habitats and Central Valley.	Open annual grasslands or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals (especially California ground squirrel) for burrows.	Present	Suitable habitat for this species is present in the BSA within the annual grasslands along the levee and adjacent open spaces. Small mammal burrows or other manmade burrow sites were not abundant in the BSA. This species is more likely to occur in open space near the BSA, especially in locations where riparian habitat is less abundant. This species was not observed during the wildlife surveys. There are several CNDDDB records within a 5-mile radius and this species is known to nest in burrows along the levee. The nearest extant occurrence for burrowing owl is located 0.16 mile south of the BSA along railroad tracks.
Swainson's hawk <i>Buteo swainsoni</i>	--	ST	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley; the state's highest nesting densities occur near Davis and Woodland, in Yolo County.	Nests in oaks or cottonwoods in or near riparian habitats; forages in grasslands, irrigated pastures, and grain fields.	Present	Suitable habitat for this species is present within the BSA. A Swainson's hawk was observed within the BSA on April 5, 2017, although a nest was not observed. Raptor nests were present along the length of the BSA in riparian trees, although only active red-shouldered hawk and red-tailed hawk nests were observed. There are several CNDDDB records within a 5-mile radius of the BSA, including records along the American River.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Mountain plover <i>Charadrius montanus</i>	--	SSC	Most birds winter from north-central California to the Mexico border, with some birds west of the Coast Range in southern countries.	Forages in short-grass prairie habitats, or their equivalents, that are flat and nearly devoid of vegetation.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT	SE	Breeds along major river valleys and occurs at isolated sites in Sacramento Valley in northern California and along Kern and Colorado River systems in southern California. The northern limit of breeding populations in California is the Sacramento Valley.	In California, prefers riparian woodlands comprised of various compositions with a dense understory along slow moving watercourses. Typically requires expansive riparian habitat of 25 – 99 acres of habitat for breeding.	Absent	No suitable habitat for this species is present within the BSA. This species prefers expansive swaths of dense riparian habitat, which is not present in the BSA. This species is more likely to use other locations for nesting along the American River where riparian habitat is denser and more expansive. This species was not observed during the wildlife surveys. The nearest CNDDDB record is a historical account from the 1800s occurring near the American and Sacramento Rivers. There are no current records of this species within a 5 mile radius of the BSA. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
White-tailed kite <i>Elanus leucurus</i>	--	FP	Lowland areas west of Sierra Nevada from head of Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border. Central Valley and low foothills of the Sierra Nevada.	Agricultural lands and open stages of most herbaceous habitats. Nests in dense oak, willow, or other tree stands. Forages by hovering over grasslands and catching small mammals such as voles.	Present	Suitable habitat for this species is present within the BSA. A white-tailed kite was observed foraging in annual grasslands within the BSA near the 16th Street Bridge on April 12, 2017. A pair of white-tailed kites was observed displaying mating behaviors in the same area on February 27, 2018. A nest was not observed, however nesting habitat is present in the BSA. There are several CNDDDB records for this species within a 5-mile radius of the BSA.
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE/ FP	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and the Lake Tahoe Basin. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County.	In western North America, nests and roosts in coniferous forests which are usually within 1 mile of a lake, reservoir, stream, or the ocean. Prefers ponderosa pine with open branch-work in stands with less than 40% canopy.	Present	Suitable habitat for this species is present within the BSA. This species could nest in large riparian trees along the American River. This species was not observed during the wildlife surveys. Nearest known nesting bald eagle is in Folsom along the American River. There are no CNDDDB records for this species within a 5-mile radius of the BSA.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--	ST/FP	Known to occur in Alameda, Butte, Contra Costa, Imperial, Marin, Napa, Nevada, Placer, Riverside, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Sutter, and Yuba counties.	Inhabits saltwater, brackish, and freshwater marshes. Nests in high areas of salt marshes, shallow freshwater marshes (less than 1.2 inches deep), and wet meadows.	Absent	No suitable habitat for this species is present within the BSA. This species was not observed during the wildlife surveys. There are no CNDDDB records for this species within a 5-mile radius of the BSA.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Song sparrow (Modesto Population) <i>Melospiza melodia</i>	--	SSC	Restricted to California, where it is locally abundant in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley.	Emergent freshwater marshes and riparian willow thickets. Nests in riparian forests of valley oak with a sufficient understory of blackberry, along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites.	Present	Suitable habitat for this species is present within the BSA. Understory vegetation in riparian habitat could be used for nesting by this species. This species was not observed during the wildlife surveys. The nearest occurrence is beyond a 5-mile radius of the BSA, near Morrison Creek south of the BSA.
Purple martin <i>Progne subis</i>	--	SSC	Nests in Sacramento; uncommon or absent elsewhere in the Central Valley. Breeds locally in coastal areas from Del Norte County south to Santa Barbara County; rare in southern California.	Uses tree cavities in woodlands for nesting; also nests in vertical drainage holes under elevated freeways and highway bridges; open areas required for feeding.	Present	Suitable habitat for this species is present with the BSA. Several trees with tree cavities were observed in the BSA that could provide nesting habitat for this species. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 1.3 miles south of the BSA, which documents nesting in weep holes in freeway and street overpasses.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Bank swallow <i>Riparia riparia</i>	--	ST	The state's largest remaining breeding populations are along the Sacramento River from Tehama County to Sacramento County and along the Feather River and lower American River, in the Owens Valley.	Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam to allow digging.	Absent	Suitable bank habitat for this species is not present in the BSA. This species could occur in flight foraging in the BSA, and likely nests along the American River where appropriate bank habitat is present. This species was not observed during the wildlife surveys. A CNDDDB record within the BSA located near SR 80 Bridge, documents 42 burrows with 30 bank swallows. The record is listed as extant, but the record states the site was ripped in 1986, which is also the year of the observation. Suitable bank habitat is no longer present. There are no other CNDDDB records within a 5-mile radius of the BSA.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE	SE	Virtually extirpated from the Central Valley, but rare occurrences of breeding are present. Typically breeds in southwestern California south of Santa Barbara County below 2,000 feet. The range has severely contracted from historic distribution in Tehama County south through the Central Valley, coastal Santa Clara County to San Diego County, and Owens Valley, Death Valley, and scattered desert oases.	Uses a wide variety of shrubs and small trees for habitat and nest-building; usually dense, low, shrubby vegetation characteristic of early successional stages in riparian areas, brushy fields, young second-growth forest or woodland, scrub oak, coastal chaparral, and mesquite bushlands along margins.	Present	Suitable habitat for this species is present within the riparian vegetation in the BSA. This species was not observed during the wildlife surveys. A CNDDDB record from 2011 documents breeding activity at the Yolo Bypass from two males, although nests remain unconfirmed. There are no other CNDDDB records for this species within a 5-mile radius of the BSA and the species remains very rare and is unlikely to occur on site. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	--	SSC	Endemic to California and most numerous in the Central Valley and surrounding area.	Colonial nester, which uses freshwater emergent wetlands with dense vegetation and deep water. Typically nests along lake and pond margins. Typically nests during maximum emergence of aquatic insects for food source. May occur in nesting sites with other species of blackbirds.	Absent	No suitable habitat for this species is present within the BSA. The portion of the American River in the BSA does not support emergent marsh habitat or vegetation. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.
Mammals						
Ringtail³ <i>Bassariscus astutus</i>	--	FP	Sierra Nevada, Coast Ranges, and the Central Valley; upper and middle portions of the Sacramento River, Feather River, and Bobelaine Sanctuary.	Riparian forests, chaparral, brushlands, oak woodlands, and rocky hillsides with crevices and tree hollows 3 inches in diameter or greater. Avoids open space and moves from tree to tree or along structures. Omnivorous and will feed on berries such as toyon or mistletoe leaves and berries and will vary depending on the seasons and food availability.	Present	Suitable habitat for this species is present within the BSA. This species could nest and forage in riparian habitat along the American River in the BSA. Tree hollows and dense woody vegetation are present for this species to move through the riparian habitat. Food sources for this species, including vertebrate prey and wild fruits, are plentiful in the BSA. No observations were made of this species during the wildlife surveys, although it is strictly nocturnal and usually not visible during the day. There are no CNDDDB records within a 5-mile radius of the BSA because CNDDDB does not track it or it is not publicly shared.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Western red bat <i>Lasiurus blossevillii</i>	--	SSC	Breeding range extends from Shasta County to the Mexican border, west of the Sierra Nevada/Cascade crest and deserts. Winter range includes western lowlands and coastal regions south of San Francisco Bay.	Roosts in foliage at tops of trees in forests and woodlands, from sea level up through mixed conifer forests. Roosts primarily in trees, but occasionally in shrubs that are adjacent to streams or meadows.	Present	Suitable habitat for this species is present within the BSA. This species could roost in riparian vegetation and forage in open space over the American River and annual grassland habitat in the BSA. This species was not observed during the wildlife surveys. There are no CNDDDB records within a 5-mile radius of the BSA.
American badger <i>Taxidea taxus</i>	--	SSC	Occurs in the Central Valley and the surrounding foothills.	Grasslands and most stages of forests with friable soils; preys primarily on small mammals, especially California ground squirrel.	Absent	No suitable habitat for this species is present within the BSA. This species typically requires large expanses of open habitat and the fragmented habitat within the BSA does not provide high-quality habitat for the species. This species was not observed during the wildlife surveys. The nearest CNDDDB record is located approximately 1.5 miles south of the BSA, which is a historical record from 1938. There are no other records within a 5-mile radius and it is unlikely to occur in the BSA.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
<i>Fish</i>						
Green Sturgeon Southern DPS <i>Acipenser medirostris</i>	FT, SC	SSC	This species is found along the west coast of the United States. The southern DPS is believed to spawn in the Sacramento River and the Feather River.	This species spawns in deep pools or "holes" in large, turbulent, freshwater river. Specific spawning habitat preferences are unclear, but eggs likely are broadcast over large cobble substrates, but range from clean sand to bedrock substrates as well. Adults live in oceanic waters, bays, and estuaries when not spawning. This species is not known to currently spawn in the American River.	Present	Suitable habitat for this species is present in the American River in the BSA. The American River provides year round habitat for sturgeon, although the river does not currently support a breeding population of green sturgeon (USFWS 2018), although habitat for spawning is present. Known spawning grounds for the Southern DPS are limited to the upper reaches of the Sacramento River and the Feather River. The portion of the American River within the BSA is within the range for this species; however, no breeding habitat is present in the BSA. Additionally, no habitat falls within the Project footprint; therefore, no impacts to habitat would occur from the proposed Project. <i>No effect</i>
Green Sturgeon Southern DPS Critical Habitat	-	-	-	-	Absent	Critical habitat for this species is absent from the BSA, but it is present in the American River downstream of the SR-160 Bridge. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Sacramento perch <i>Archoplites interruptus</i>	--	SSC	Most populations are introduced, except Clear Lake. Introduced throughout the state including the upper Klamath basin, upper Pit River watershed, Walker River watershed, Mono Lake watershed, and Owens River watershed, and may exist in Sonoma Reservoir in the Russian River watershed.	Sacramento perch are most often found in warm reservoirs and ponds where summer temperature range from 18-28°C. Associated with submergent vegetation.	Absent	No suitable habitat for this species is present within the BSA. This species is not known to occur in the American River. Known population in Brickyard Pond is introduced, approximately 6 miles southwest of the BSA (at Greenhaven Lake). No CNDDDB records within a 5-mile radius.
Delta smelt <i>Hypomesus transpacificus</i>	FT	SE	Sacramento River–San Joaquin River Delta.	Euryhaline (fresh and brackish water) estuary channels; spawning habitats consist of side channels and sloughs in the middle reaches of the Delta.	Absent	No suitable habitat for this species is present within the BSA, the BSA does not occur within the Delta region. There are no CNDDDB occurrences within a 5-mile radius of the BSA. Critical habitat for this species is located approximately 1.5 miles west of the BSA. Additionally, no habitat falls within the Project footprint; therefore, no impacts to habitat would occur from the proposed Project. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Central Valley Steelhead DPS <i>Oncorhynchus mykiss irideus</i>	FT	--	Sacramento and San Joaquin Rivers and tributaries, Sacramento-San Joaquin Delta, San Francisco Bay	Cool, rocky streams with moderate size gravel for spawning and shade trees for cover and rearing.	Present	Suitable habitat for this species is present in the American River in the BSA. The American River provides migration habitat for steelhead as they swim upstream to breeding and rearing habitat. Nimbus dam located approximately 23 miles upstream is considered a complete barrier to fish passage. The fish hatchery at Nimbus operated by CDFW raises steelhead. The portion of the American River within the BSA is within the range for this species; however, no breeding habitat is present in the BSA. Additionally, no habitat falls within the Project footprint; therefore, no impacts to habitat would occur from the proposed Project. <i>No effect</i>
Central Valley Steelhead Critical Habitat	-		-	-	Present	The American River in the BSA is designated as critical habitat for Central Valley steelhead; however, no direct impacts to the River or overhanging riparian vegetation is required for this Project. <i>No effect</i>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Central Valley fall/late fall-run chinook salmon <i>Oncorhynchus tshawytscha</i>	SSC, SC	SSC	Sacramento and San Joaquin Rivers and tributaries, Sacramento-San Joaquin Delta, San Francisco Bay.	Morphologically, similar to spring-run Chinook salmon. Require cool water with moderate size gravel for spawning and cover for rearing.	Present	<p>Suitable habitat in the BSA for this species is present in the American River. This species is known to spawn in the American River and its tributaries up to the Nimbus Dam. There are no CNDDDB records documenting fish in the stream, but the American River is a known spawning stream for this species, especially at Paradise Beach adjacent to the BSA. The fish hatchery at Nimbus operated by CDFW raises chinook salmon. Additionally, no habitat falls within the Project footprint; therefore, no impacts to habitat would occur from the proposed Project.</p> <p><i>No effect</i></p>

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Central Valley spring-run chinook salmon ESU <i>Oncorhynchus tshawytscha</i>	FT	FT	Sacramento River-San Joaquin River system in the Central Valley. Limited to Butte, Mill, Deer, Antelope, and Beegum Creeks, tributaries to the Sacramento River.	Cool, rocky streams with moderate size gravel for spawning and shade trees for cover and rearing.	Present	Suitable habitat in the BSA for this species is present in the American River. This species historically spawned in the American River, but dams, historical mining operations, and water diversions have extirpated this migration run from the River. This species currently enters into the American River but is not known to spawn in the River (Williams 2014). Furthermore, dams are a physical barrier to spawning grounds. No CNDDDB records document the presence of this run in the BSA. Additionally, no habitat falls within the Project footprint; therefore, no impacts to habitat would occur from the proposed Project. <i>No effect</i>
Central Valley spring-run chinook salmon Critical Habitat	-	-	-	-	Present	The American River in the BSA is designated critical habitat from the confluence with the Sacramento River to the Watt Avenue Bridge.

Common Name Scientific Name	Legal Status ¹		Distribution	Habitat Requirements	Habitat Present/ Absent	Rationale ²
	Federal	State				
Sacramento River Winter-run chinook salmon <i>Oncorhynchus tshawytscha</i>	FE	FE	Sacramento River, Sacramento-San Joaquin Delta, San Francisco Bay. Historically spawned in the upper reaches of the Sacramento, McCloud and lower Pit Rivers. Currently, spawning is limited to reaches of the Sacramento River below Keswick Dam. Does not spawn in tributary streams.	Cold, clean water with moderately sized gravel for spawning and egg incubation. Water temperatures between 6-14 degrees Celsius are required for hatching.	Absent	No suitable habitat for this species is present within the BSA. This run of chinook salmon is not known to spawn or occur within the American River. No effect
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	--	SSC	Formerly throughout Sacramento-San Joaquin River drainage, CA; now restricted to San Francisco Bay Delta and lower Sacramento River. Historically known to occur in the American River.	Backwaters and pools of rivers; lakes. Tolerant of brackish water. Flooded vegetation required for spawning.	Present	Suitable habitat for this species is present in the American River in the BSA, up to Nimbus Dam. Submerged riparian vegetation provides spawning habitat. Nearest CNDDDB record are from the Sacramento River approximately 2.2 miles southwest of the BSA.
Longfin smelt <i>Spirinchus thaleichthys</i>	FC	ST/ SSC	Scattered populations of longfin smelt occur along the Pacific coast of North America from Alaska to the San Francisco Estuary. The largest population of longfin smelt is found in the Sacramento-San Joaquin Delta.	Occupy the middle or bottom of the water column in salt or brackish waters in estuaries. Longfin smelt larvae and small juveniles are rarely found in water warmer than 71.6 °F (22 °C). Require freshwater habitats for spawning but can be found in freshwater or saltwater.	Absent	No suitable habitat for this species is present within the BSA. Nearest CNDDDB record is from the Sacramento River approximately 3.4 miles southwest of the BSA in the Delta. No effect

¹ Status explanations:

-- = no listing.

Federal

FC = Federal candidate for listing under the federal Endangered Species Act.

FE = Listed as endangered under the federal Endangered Species Act.

FT = Listed as threatened under the federal Endangered Species Act.

SC = NMFS species of concern

SSC = Federal species of special concern.

State

SC = State candidate for listing under the California Endangered Species Act.

SE = Listed as endangered under the California Endangered Species Act.

SSC = State species of special concern

ST = Listed as threatened under the California Endangered Species Act.

FP = Listed as fully protected under the California Fish and Game Code.

²Rationale includes an effects determination under the FESA for all federally listed species

³This species did not show up on the CNDDDB or USFWS lists but is included in this report because AWE biologists determined that suitable habitat is within the BSA and the BSA falls within the range for this species.

Source: USFWS 2018, CDFW 2018, and NMFS 2018