



90-Day Survey Report For 2024-2025 Wet Season Surveys for Listed Large Branchiopods

Meadowview 102
(#RP-Meadowview Site-2023-1019)

Sacramento County, California
11 June 2025

"I certify that the information in this survey report and attached exhibits fully and accurately represents my work."



Bonnie Peterson, 11 June 2025
USFWS Recovery Permit # #TE-205600-1
Phone: (916) 822-3230



Prepared for:

Prepared for:

City of Sacramento
915 I Street, 2nd Floor
Sacramento, CA 95814

Recommended Citation:

Madrone Ecological Consulting, LLC (Madrone). 2025. *90-Day Survey Report for 2024-2025 Wet Season Surveys for Vernal Pool Branchiopods for Meadowview 102 (#RP-Meadowview Site-2023-1019)* Prepared for City of Sacramento. Published on 11 June 2025.

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Listed Large Branchiopods
Meadowview 102**

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1.0 INTRODUCTION

The purpose of this report is to provide the results of wet season surveys for federally-listed large vernal pool branchiopods (listed large branchiopods) conducted by Madrone Ecological Consulting, LLC (Madrone) within the Meadowview 102 (Study Area) during the 2024-2025 wet season. Wet and dry season sampling was conducted within the Study Area during the 2023-2024 rainy season with negative results and a 90-day report of finding was submitted to the U.S. Fish and Wildlife Service (USFWS) on 3 September 2024. This additional year of wet season surveys was conducted to strengthen the conclusion that federally-listed shrimp species are absent from the site. This report is intended to fulfill the mandatory reporting requirements of the USFWS Recovery Permit issued to Bonnie Peterson as listed on the cover page of this report and as described further below. Conditions within the Study Area during the 2024-2025 wet season were suitable for conducting surveys for listed large branchiopods. Target species included the federally endangered conservancy fairy shrimp (*Branchinecta conservatio*) and vernal pool tadpole shrimp (*Lepidurus packardii*), as well as the federally-threatened vernal pool fairy shrimp (*Branchinecta lynchi*).

2.0 LOCATION

The approximately 102-acre Study Area is located south of Meadowview Road in the City of Sacramento, Sacramento County, California. The Study Area is located in portions of Sections 7 and 18, Township 7 North, Range 5 East (MDB&M) of the "Florin, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (Figure 1). The Study Area is located at approximately easting (NAD83): 633264.8, northing (NAD83): 4259073.5 and comprised of Sacramento County Assessor Parcel Number (APN) 053-0010-078 owned by the City of Sacramento.

3.0 SURVEY AUTHORIZATION

Wet season surveys for listed large branchiopods were conducted under the authority of USFWS Recovery Permit for Madrone senior biologist Bonnie Peterson (TE205600-1) issued under Section 10(a)(1)(A) of the Endangered Species Act, 16 U.S. Code 1531 et seq. and in accordance with the 13 November 2017 *Survey Guidelines for the Listed Large Branchiopods* (Guidelines) (USFWS 2017). Authorization to conduct wet season surveys was issued by the USFWS in an email from SFWO Permit office email address on 4 December 2024 (USFWS Survey Authorization Number 2023-1019) (Attachment A).

4.0 SURVEY METHODS

All potential listed large branchiopod habitat was sampled within the Study Area during the 2024-2025 wet season. Potential habitat for listed large branchiopods is defined as any seasonally inundated depression that, on average, ponds water at a sufficient depth and duration for a listed large branchiopod to complete its lifecycle. Habitats that swiftly flow water (e.g., creeks, streams, and ephemeral drainages) or habitats that are semi-to-permanently inundated and support perennial populations of predators (e.g., bullfrogs, fish, and crayfish) generally do not provide suitable habitat for listed large branchiopods (USFWS 2017). **Figure**

2 is an exhibit showing all potential listed large branchiopod habitat within the Study Area and wet season sampling locations by feature. Within the Study Area there are 32 seasonal wetlands and a created pond that represent potential habitat for listed large branchiopods (**Figure 2**).

A total of nine field surveys were conducted during the 2024-2025 wet season by Ms. Peterson on the following dates: 5 December and 23 December 2024, 6 January, 17 January, 14 February, 28 February, 14 March, 28 March, and 11 April 2025. As the Study Area lies within Survey Zone A (Southern Oregon, Sacramento Valley, San Francisco Bay Area, North Coast Ranges, Northern Sierra Valley Foothills, Cascade Range foothills, and South Coast Ranges) as defined in the Guidelines, surveys were timed to occur at 14-day intervals after initial inundation of habitat and continued until each potential habitat dried or a minimum of 90 consecutive days of inundation had occurred. Sampling was reinstated within 14 days of an individual habitat drying and inundating during the same wet season.

Sampling methods for features inundated during the survey dates were as follows: each sampled feature was first visually inspected for the presence of listed large branchiopods. Next, the habitat was sampled using a three-foot-long, 12-inch triangle aquatic insect collecting net. Net sampling involved making a series of pulls through the ponded habitat by extending the net out and pulling it back in a sweeping or zig-zag motion, occasionally gently bouncing the net at the bottom of the feature. The net was visually examined for captured organisms and then cleaned of debris between pulls. The number of pulls made in each feature was commensurate to feature size and ponding depth. All captured organisms were visually identified to the extent possible and were returned to the habitat they were captured from; no voucher specimens were collected. Data collected during each survey included date, air temperature, water temperature, weather conditions (e.g., sunny, overcast), present maximum depth of each sampled feature, and hydrology/ponding. If listed large branchiopods were captured, the number of individuals in each feature was estimated in an order of magnitude (e.g., 10s, 100s, 1000s) and recorded.

Additionally, during the wet season survey, a minimum of five color digital photographs were taken at the Study Area, including two photographs taken from a standing position that portray the general landscape of the site and three photographs of represented potential habitat within the Study Area sampled for listed large branchiopods. For each photograph, the following data were recorded: the unique identifier of the feature (e.g., VP-1) as shown on **Figure 2**, the direction from which the photograph was taken, date, name of photographer, and the scientific name of any listed large branchiopod species found within the photographed habitat.

5.0 GENERAL SITE CONDITIONS AND HABITATS

The Study Area is located south of Meadowview Road and north of Consumnes River Boulevard and is comprised of a disturbed non-native annual brome grassland interspersed with occasional disturbed areas, and bordered to the east and west by a row of Eucalyptus trees. The Study Area is at an average elevation of approximately 12 to 18 feet above mean sea level. The property was a California Highway Patrol training academy established in 1954 and then was owned by the Federal Job Corps. Per historic aerials (Historicaerials.com) by 1964 the property was modified regularly for training purposes, including the

establishment of a cantilevered track along the perimeter and frequent grading, disking and associated land modifications. This regular disturbance has continued to the present time. In 2007, a detention basin and associated ditch were excavated in the northwest corner of the Study Area. Surrounding properties include similar habitat to the west and north, a residential development to the east, and a planned residential development to the south and southeast. During 2024-2025 the area in and around seasonal wetland SW-25 was used intermittently as a homeless encampment and a car, tents, and other debris are located in this wetland.

The majority of the Study Area supports disturbed annual brome grasslands that are characterized by soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*), and perennial rye (*Festuca perennis*). Common forbs within this community include prickly lettuce (*Lactuca serriola*), yellow star-thistle (*Centaurea solstitialis*), and alkali mallow (*Malvella leprosa*).

There are disturbed areas including the dilapidated paved roads and margins. These areas are comprised of compacted broken asphalt, earth and/or gravel and are largely unvegetated. The edges of these roads support ruderal vegetation, including stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola tragus*), black mustard (*Brassica nigra*), wild radish (*Raphanus sativus*), milk thistle (*Silybum marianum*), bindweed (*Convolvulus arvensis*), and broad leaf filaree (*Erodium botrys*).

The eastern and western Study Area boundaries are characterized by windbreaks comprised by mature blue gum (*Eucalyptus globulus*). The understory of this habitat is dominated by annual brome grassland species including soft chess, wild oats, rip-gut brome, and perennial rye.

Surface water in the Study Area all appears to be from natural stormwater runoff and groundwater. The paved cantilevered track along the perimeter of the Study Area has created a basin effect with a number of seasonal wetlands located in the center of the track. A storm water retention pond was installed in 2007 directing run-on from the parcel north of the Study Area into the on-site retention pond. Additionally, it appears that soil excavation has created three basins in the southern portion of the Study Area that also fill seasonally with rain water.

6.0 RESULTS

Wet season surveys for large vernal pool branchiopods were conducted within the Meadowview 102 Study Area by permitted Madrone biologists during the 2024-2025 wet season. Wet season conditions were suitable for conducting surveys for listed large branchiopods and surveys were conducted following the Survey Zone A protocol outlined in the Guidelines. All captured organisms were visually identified to the extent possible and were returned to the habitat they were captured from; no voucher specimens were collected.

Attachment B contains the wet season data sheets from each sampling event and provides detailed sampling data. **Attachment C** includes the representative photographs taken of the Study Area during the 2024-2025 wet season surveys. No listed large branchiopod were observed during the 2024-2025 wet season surveys and CNDDDB forms were not required or completed. Other large branchiopods observed

during the surveys included the common California fairy shrimp (*Linderiella occidentalis*) which was documented in eight features. Aquatic invertebrates observed included micro-turbellaria, Ostracod, Cladocera (Diplostraca), Copopoda, Hemiptera, Hydrophilidae, Dytiscidae, Culicidae, and Hydracarina. The 2024-2025 wet season surveys represent completion of two consecutive years of wet season surveys and one year of dry season surveys with no listed large branchiopod occurrences within the Study Area.

7.0 REFERENCES

California Department of Fish and Wildlife (CDFW). 2025. *Submitting Data to the CNDDDB*. Available Online: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. Accessed 1 January 2025.

Eriksen, C.H., and D. Belk. 1999. *Fairy Shrimps of California's Puddles, Pools, and Playas*. Mad River Press, Inc., Eureka, California.

Madrone Ecological Consulting, LLC (Madrone). 2024. *Aquatic Resources Delineation Report for Meadowview 102*. Prepared for Raney Planning & Management, Inc. Published on 6 September 2024

Maxar. 2022. *Aerial photography of the Study Area*. Dated 12 April 2022.

U.S. Department of the Interior, Geological Survey (USGS). 2021. "*Florin, California*" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

U.S. Department of the Interior, Fish and Wildlife Service. 2017. *Survey Guidelines for the Listed Large Branchiopods*. Sacramento, California. Revised 13 November 2017.

Figures

Figure 1. Site and Vicinity

Figure 2. Sampling Locations

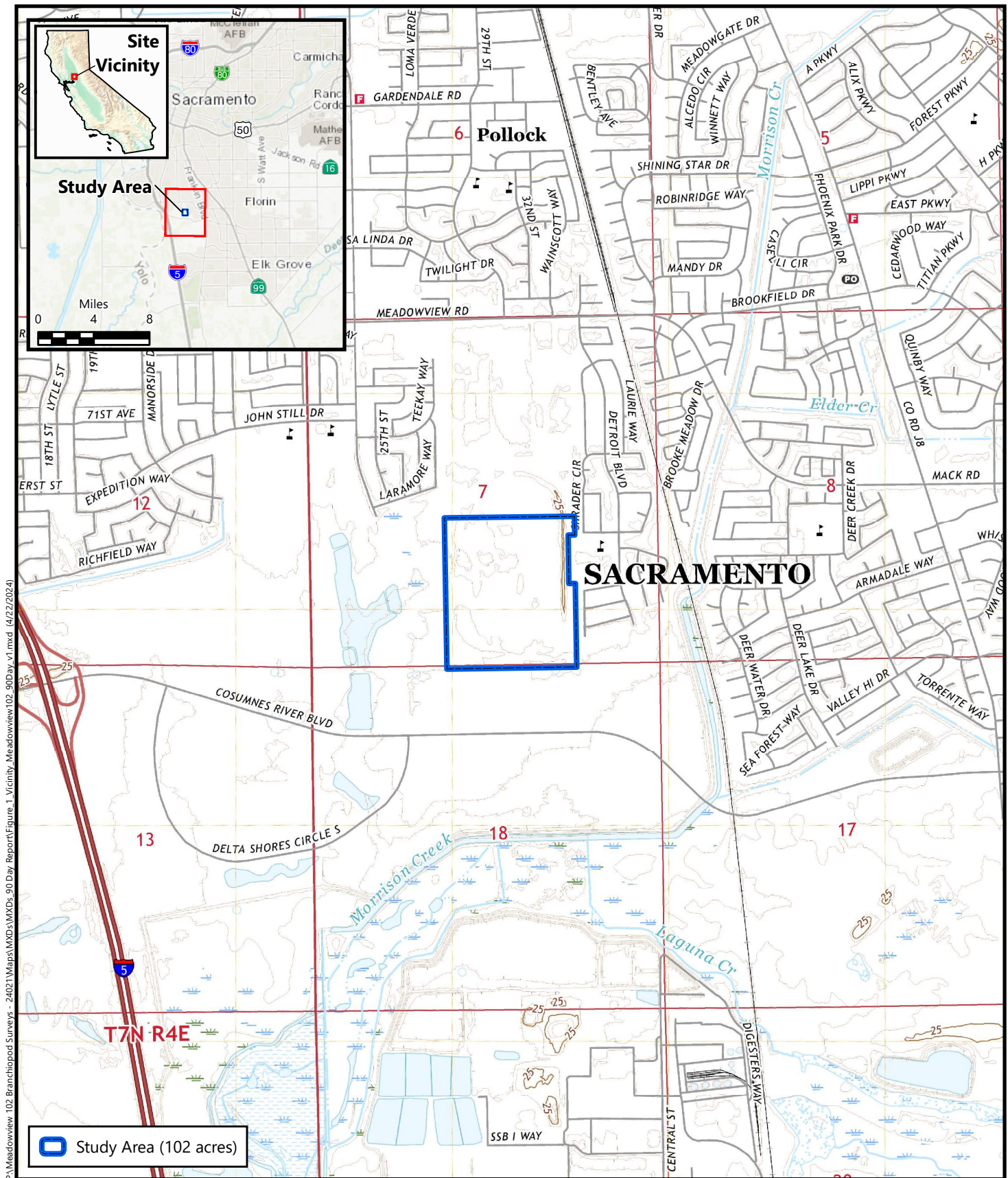


Figure 1
Site and Vicinity

Source: United States Geologic Survey, 2021
 "Florin, California" 7.5-Minute Topographic Quadrangle
 Sections 7 and 18, Township 7 North, Range 5 East, MDBM
 UTM: Easting (NAD83): 633264.8, Northing (NAD83): 4259073.5

Meadowview 102
 Sacramento County, California



P:\Meadowview 102 Branchiopod Surveys - 2402\1 Maps\MXDs\WXDs_90 Day Report\Figure 2_ShrimpResults_Meadowview 102_90Day_v2.mxd (5/30/2025)

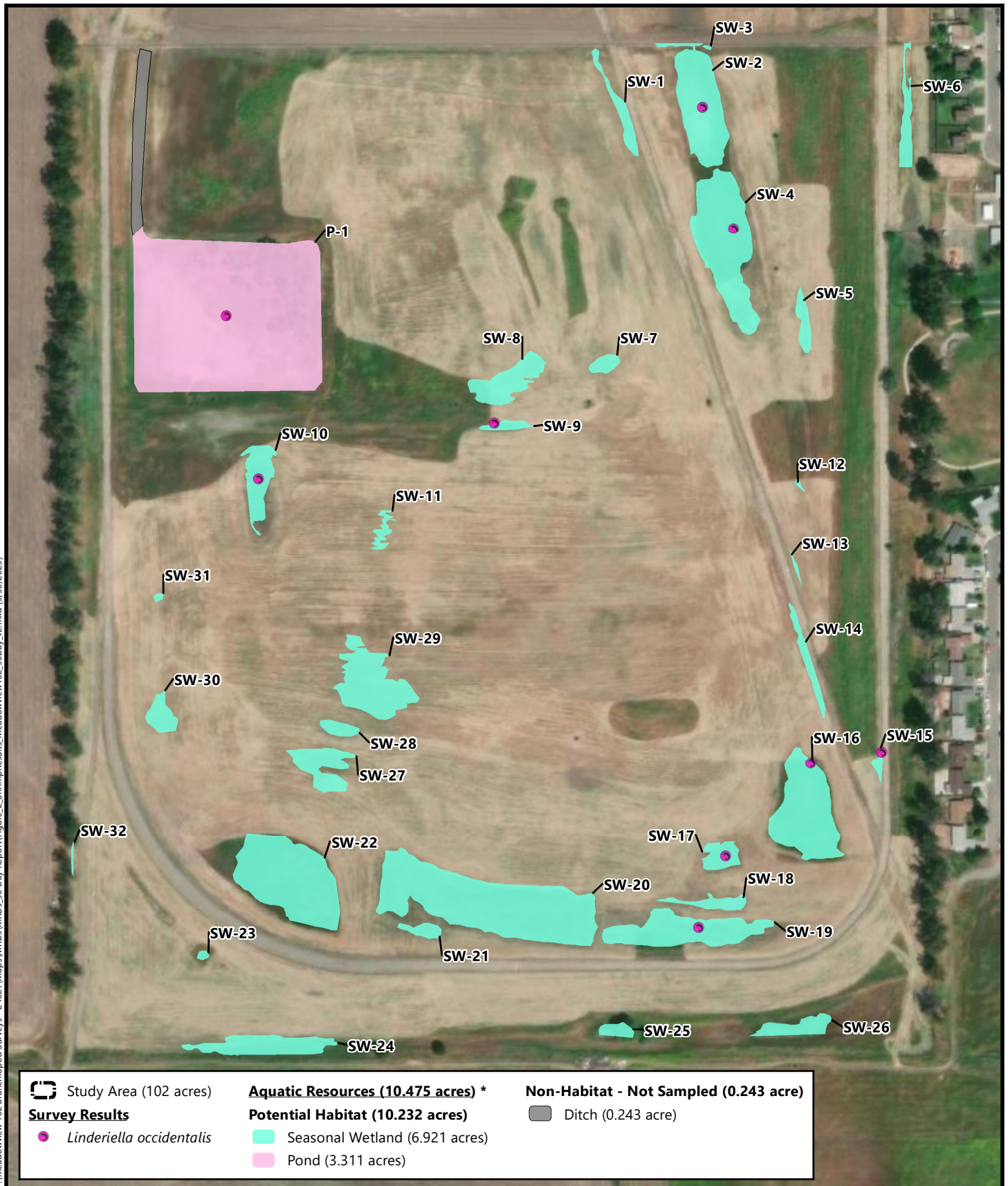


Figure 2
Potential Vernal Pool
Branchiopod Habitat

* Small summation errors may occur due to rounding
Aerial Source: Maxar, 12 April 2022

Meadowview 102
Sacramento County, California



Attachments

Attachment A. USFWS Survey Authorization

Attachment B. 2024-2025 Wet Season Survey Data Sheets

Attachment C. Representative Site Photographs

Attachment A

USFWS Survey Authorization

Bonnie Peterson

From: SFWO Permits, FW8 <FW8_SFWO_Permits@fws.gov>
Sent: Wednesday, December 4, 2024 1:38 PM
To: Daria Snider
Cc: Cook, Megan T; Sarah Vonderohe; Bonnie Peterson
Subject: Re: [EXTERNAL] Request to sample for an additional wet season at Meadowview 102, Sacramento County, CA (prior reference number RP-Meadowview Site-2023-1019)

Hello,

Thank you for the email. We have reviewed your request and approve the wet season survey with vernal pool branchiopods. By conducting activities with listed species under the recovery permit, you agree to follow the Special Terms and Conditions of the permit. Failure to do so will result in suspension or revocation of the recovery permit. Please remember to carry a copy of the permit while performing authorized activities. This authorization does not include access to the property, which must be arranged with the landowner or manager.

Within 90 days following completion of the final presence/absence survey for the vernal pool branchiopods, a report shall be submitted to fw8_sfwo_permits@fws.gov and the Sacramento Valley Division Supervisor, Megan Cook (megan_cook@fws.gov). The report will include all reporting criteria specified in the [Survey Guidelines for the Listed Large Branchiopods](#). For surveys with negative results and for incomplete surveys (e.g., projects put on hold or withdrawn) a survey report is still required. Survey reports shall include:

1. i) Title, ii) permit number, iv) permittee name and their respective contact details, v) the location/GPS coordinates, vi) number and dates of surveys, vii) the activities completed, and viii) date of preparation on the report;
2. GIS data or GPS coordinates. The location of the listed vernal pool branchiopods (i.e., pools, swales, ponds) shall be plotted in as precise a manner as possible on 1:24,000 or closer scale map(s) of the survey area. Maps shall be either topographic or aerial photography with roads and place names identified (where available). Surface features on the map shall be readable and not masked out by other information. Maps shall identify the scale and include a North Arrow;
3. All vernal pool data sheets should be included as attachments to this final report. Vernal pool datasheets will not solely be submitted as a final report for any one project site;
4. The following certification statement signed by each surveyor performing activities in independent status pursuant to this permit: "I certify that the information in this survey report and attached exhibits fully and accurately represents my work." The date of signature and the surveyor's permit number shall be included; and
5. All other information required in the [Survey Guidelines for the Listed Large Branchiopods](#) and 90-Day Survey Report section of the permit.

Please email fw8_sfwo_permits@fws.gov if you have additional questions.

Thank you,

Sacramento Fish and Wildlife Office

10(a)(1)(A) Recovery Permitting | **Sacramento Fish and Wildlife Office**

Pacific Southwest Region | U.S. Fish and Wildlife Service

Helpful Links: [ePermits](#) | [Pacific Southwest Recovery Permitting](#) | [Minimum Qualifications](#) | [Survey Protocols](#) | [Vernal Pool Branchiopod Practical Exams](#)

From: Daria Snider <dsnider@MadroneEco.com>

Sent: Friday, November 22, 2024 11:33 AM

To: SFWO Permits, FW8 <FW8_SFWO_Permits@fws.gov>

Cc: Cook, Megan T <megan_cook@fws.gov>; Sarah Vonderohe <svonderohe@MadroneEco.com>; Bonnie Peterson <bpeterson@MadroneEco.com>

Subject: [EXTERNAL] Request to sample for an additional wet season at Meadowview 102, Sacramento County, CA (prior reference number RP-Meadowview Site-2023-1019)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello,

I am requesting authorization to conduct an additional season of wet season sampling for federally-listed vernal pool branchiopods at the approximately 102-acre Meadowview 102 project site in the City of Sacramento, Sacramento County, California. You authorized wet and dry season surveys at this site last year, and the results were negative. We would like to conduct one more year of wet-season surveys to strengthen the conclusion that federally-listed shrimp species are absent from the site. The work will be conducted under the following permits: Dustin Brown (TE85084C-0, renewal currently pending), Bonnie Peterson (TE205600-2), Daria Snider (TE89994B-2), Tara Collins (ESPER0121456) and Matthew Shaffer (ESPER4207925).

Site and Habitat Description

The project area is generally located east of Interstate 5, north of Cosumnes River Boulevard, south of Meadowview Road, and west of the Sacramento Regional Transit Blue Line light rail corridor within the city of Sacramento. The project area, which is assigned Assessor's Parcel Number 053-0010-078, is adjacent to vacant areas to the west and south that are planned for residential development, existing residential development and a community park and elementary school to the east, and vacant federally-owned land and commercial/light industrial development to the north. The northwest corner of the site is located at latitude 38.473205, longitude -121.475756.

Madrone biologists have visited the site on multiple occasions beginning in February 2022 with an initial site visit to assess conditions. Madrone completed an aquatic resources delineation of the Study Area in 2022, during which we mapped 6.92 acres of seasonal wetlands, 0.24 acre of ditch, and 3.31 acres of pond. A copy of the delineation map is included as an attachment. The project area is primarily comprised of non-native annual grassland habitat. Blue gum eucalyptus (*Eucalyptus globulus*) windbreaks are planted along the eastern and western property boundaries. The property was the first California Highway Patrol training academy, established in 1954, before becoming the home of the Federal Job Corps. Historic aerial imagery shows that, between 1957 and 1964, a cantilevered track was constructed along the perimeter and that regular site disturbance in the forms of vehicular use (dirt roads), grading, and disking have continued to the present. A detention basin, which was built in the northwestern corner of the Study Area in 2007, receives storm water from the north via a constructed ditch. The ditch appears to have been present for many years but has recently been reworked as a trapezoidal channel. The ditch has minimal vegetation. The pond is a seasonal feature that may have some groundwater influence as the pond margins support willows (*Salix* spp.) and cottonwoods (*Populus fremontii*). The pond dries completely by late spring/early summer.

Potential branchiopod habitat within the project area consists of 32 seasonal wetlands and one pond.

Background

A query of the California Natural Diversity Database revealed several documented occurrences of federally-listed vernal pool branchiopods within 5 miles of the site with the nearest being 0.25 mile east of the project site. As noted above, we conducted wet-season and dry-season surveys of the site last year (reference number [RP-Meadowview Site-2023-1019](#)). The 90-day report of findings was submitted to your office previously, but please let me know if you would like me to forward it again.

Purpose

The purpose of the wet season and dry season sampling is to determine whether federally-listed vernal pool branchiopods such as vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), or conservancy fairy shrimp (*Branchinecta conservatio*) is present.

Schedule

The onsite pools have been dry until the beginning of the current storm, but we expect that they will be full by the end of this series of storms. As such, we would like to proceed with the dry season sampling immediately after we receive authorization. The wet season sampling will occur through the 2024-2025 wet season.

Owner

City of Sacramento
915 I Street, 2nd Floor
Sacramento, CA 95814
Contact – Richard Sanders

Recovery of the Species

By conducting branchiopod surveys within the property, we will potentially provide additional species distribution data. An accumulation of such information may enhance the understanding of the biology and ecology of vernal pool crustaceans, and allow us to better manage, protect, and promote the recovery of these species.

Please let me know if you have any questions regarding this request.

Daria Snider

Senior Biologist



8421 Auburn Blvd.
Suite #248,
Citrus Heights, CA 95610

Office: (916) 822-3230
Direct: (916) 822-2998
Cell: (916) 206-1686

www.madroneeco.com

DGS SBE, SBA WOSB,
CPUC WBE, and SMUD SEED

Attachment B

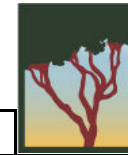
2024-2025 Wet Season Survey Data Sheets

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Page 1 of 1

Page 1 of 1

Wet Season Survey Data Sheet



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Project Name: Meadowview 102

Survey Date: 2/14/25

Weather Conditions: Sunny, clear, breezy

Permit #: TE205600-2

Start Time: 1015

Start Air Temperature (°C): 16.1

Permitted Biologist: Bonnie Peterson

End Time: 1430

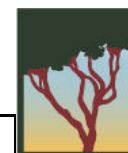
End Air Temperature (°C): 18.7

Assisted By:

Feature No.	Water Temperature (°C)	Present Ponded Depth (in)	Current % Surface Area	Micro-Turbellaria	Crustacea										Insecta										Gastropoda	Hydracaini	Herps		Habitat Condition				Land Use					
					Amphipoda	Cladocera	Copepoda	Ostracoda	Large Branchiopods						Coleoptera		Diptera		Ephemeroptera	Hemiptera		Limnephilidae	Odonata				Bufo boreas	Pseudacris sierra	Undisturbed	Disturbed			Fallow	Agriculture	Grazed			
									BRLY	BRME	CYCA	LEPA	LIOC	LYBR	Dytiscidae	Hydrophilidae	Halipidae	Chironomidae		Culicidae	Corixidae		Notonectidae	Zygoptera						Anisoptera	Tire Ruts	Garbage			Plowed or Disked	Light	Moderate	Heavy
SW-6	10.9	9	70	X								X														X			X									
SW-15	11	9	100	X			X																			X			X									
SW-16	14.7	16	100	X								X									X					X			X									
SW-14	14.7	7	100	X			X																			X			X									
SW-13	14.7	7	100	X			X																			X			X									
SW-12	15	4	100	X			X																			X			X									
SW-5	15	9	100	X			X					X														X			X									
SW-4	13.1	16	100	X			X					X														X			X									
SW-3	14.7	7	100	X																						X			X									
SW-2	14.7	12	85	X			X					X														X			X									
SW-1	19.6	4	100	X								X														X			X									
SW-7	17.1	4	100																							X			X									
SW-8	17.1	8	100	X																						X			X									
SW-9	17.1	11	8																							X			X									
SW-11	17.1	11	100	X			X					X														X			X									
SW-10	17.9	13	55	X			X					X	X													X			X									
SW-31	17.9	7	100																							X			X									
SW-30	17.5	8	100																			X				X			X									
SW-29	17.9	10	100																							X			X									
SW-28	17.9	7	100																							X			X									
SW-27	18.4	9	100																							X			X									
SW-22	Dry																									X			X									
SW-32	16.6	6	100																							X			X									
SW-23	16.6	14	100																							X			X									
SW-24	17.1	12	100																							X			X									
SW-25	17.1	20	100																								X		X									
SW-26	16.7	18	100																							X			X									
SW-19	17.5	12	80																							X			X									

**MADRONE
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Wet Season Survey Data Sheet


MADRONE
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Project Name: Meadowview 102

Survey Date: 1/6/25

Weather Conditions: Calm, partially cloudy

Permit #: TE205600-2

Start Time: 0915

Start Air Temperature (°C): 13

Permitted Biologist: Bonnie Peterson

End Time: 1015

End Air Temperature (°C): 13

Assisted By:

Feature No.	Water Temperature (°C)	Present Ponded Depth (in)	Current % Surface Area	Micro-Turbellaria	Crustacea							Insecta										Gastropoda	Hydracaini	Herps		Habitat Condition			Land Use									
					Amphipoda	Cladocera	Copepoda	Ostracoda	Large Branchiopods						Coleoptera			Diptera		Hemiptera				Odonata		Bufo boreas	Pseudacris sierra	Undisturbed	Disturbed		Fallow	Agriculture	Grazed					
									BRLY	BRME	CYCA	LEPA	LIUC	LYBR	Dytiscidae	Hydrophilidae	Halplidae	Chironomidae	Culicidae	Ephemeroptera	Corixidae			Notonectidae	Limnephilidae				Zygoptera	Anisoptera			Tire Ruts	Garbage	Plowed or Disked	Light	Moderate	Heavy
SW-2	14.5	13	5	X		X	X	X					100		X	X																						
SW-1	14.5	5	5	X				X							X	X																						
SW-12	14.5	10	100	X			X	X							X	X																						
SW-13	14.5	5	100	X				X																														
SW-14	14.5	10	65	X			X	X								X																						
SW-14	14.5	15	100	X				X					100																									
P-1	15	25	65	X		X	X	X					1000									X						X				X						
All other features dry																																						

Large Branchiopods: BRLY = *Branchinecta lynchi*, BRME = *Branchinecta mesoovallensis*, LIOC = *Linderiella occidentalis*, LEPA = *Lepidurus packardii*, CYCA = *Cyzicus californicus*, LYBR = *Lynceus brachyurus*
Land Use: Grazed (C = cattle, H = horse, S = sheep, O = other)

Hydrology: S = saturated, N/P = not ponded

X = species present, **Large Branchiopods abundance** = (1's, 10's, 100's, 1000's)

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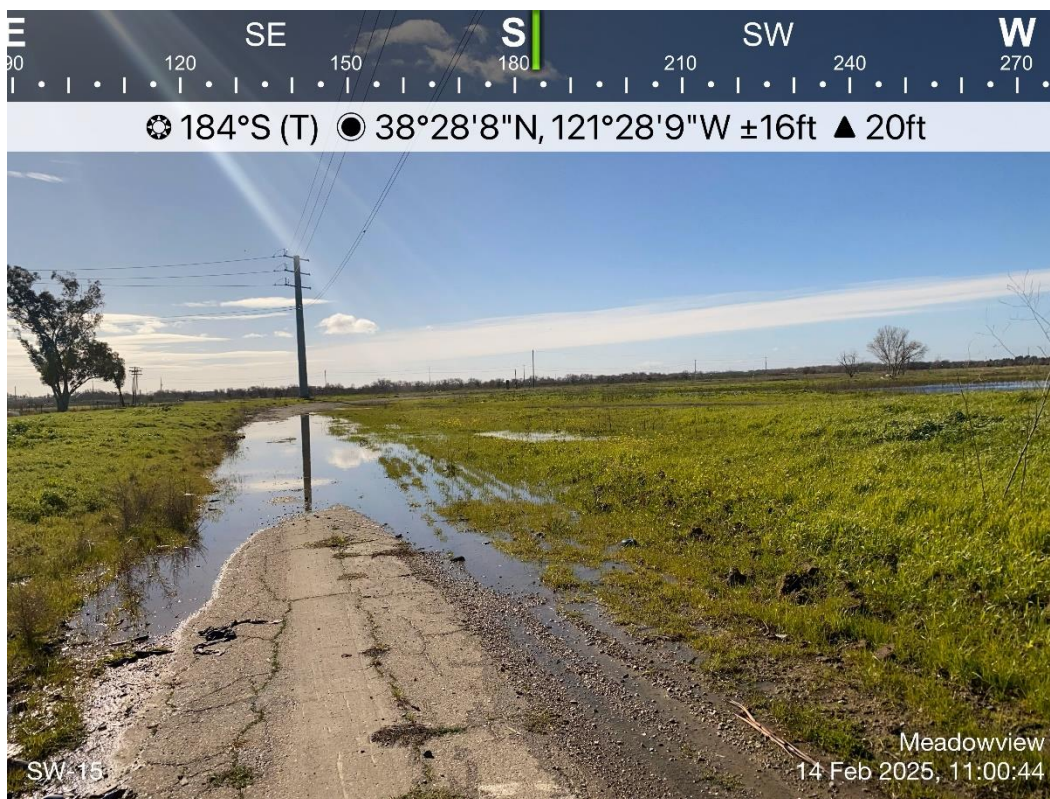
[illegible]

Feature Details

Feature ID	Acre	Sq Ft	Latitude (NAD83)	Longitude (NAD83)	Northing (UTM)	Easting (UTM)	Branchiopods observed
SW-1	0.101	4400.870973	38.47277672	-121.4713391	4259379.571	633349.7435	
SW-2	0.526	22930.62997	38.47280754	-121.4707036	4259383.912	633405.1315	Linderiella occidentalis
SW-3	0.003	135.6275348	38.47316634	-121.4706441	4259423.814	633409.6593	
SW-4	0.743	32343.75488	38.47194917	-121.4705126	4259288.935	633423.3764	Linderiella occidentalis
SW-5	0.073	3178.057229	38.47145612	-121.4699005	4259235.109	633477.6813	
SW-6	0.113	4941.607723	38.47269342	-121.4690811	4259373.6	633546.8868	
SW-7	0.048	2099.789042	38.47120646	-121.4714688	4259205.132	633341.3221	
SW-8	0.235	10246.79839	38.4711009	-121.4722351	4259192.308	633274.6656	
SW-9	0.042	1838.304201	38.47082545	-121.4722444	4259161.728	633274.3669	Linderiella occidentalis
SW-10	0.199	8660.426985	38.47050166	-121.4742049	4259122.961	633103.9233	Linderiella occidentalis
SW-11	0.047	2027.787276	38.47017713	-121.4732285	4259088.36	633189.7056	
SW-12	0.005	218.9309457	38.47044595	-121.4699416	4259122.951	633475.9613	
SW-13	0.009	395.3946819	38.46994035	-121.4699731	4259066.798	633474.1443	
SW-14	0.089	3864.901195	38.46935874	-121.4698831	4259002.388	633483.0661	
SW-15	0.022	945.4229143	38.46870967	-121.4693301	4258931.162	633532.5139	Linderiella occidentalis
SW-16	0.598	26028.24902	38.4684234	-121.469906	4258898.56	633482.7939	Linderiella occidentalis
SW-17	0.1	4336.531155	38.46814917	-121.4705788	4258867.154	633424.6027	Linderiella occidentalis
SW-18	0.082	3569.03952	38.46786139	-121.4706341	4258835.138	633420.3116	
SW-19	0.458	19941.04855	38.4676863	-121.4708715	4258815.365	633399.9223	Linderiella occidentalis
SW-20	1.336	58176.75193	38.46786765	-121.4724178	4258833.25	633264.6791	
SW-21	0.051	2221.974216	38.46769874	-121.4729261	4258813.771	633220.6473	
SW-22	0.802	34929.07394	38.46801908	-121.4739806	4258847.793	633128.0597	
SW-23	0.01	438.4789152	38.46755328	-121.4746629	4258795.118	633069.3878	
SW-24	0.257	11201.27381	38.46699214	-121.4741782	4258733.548	633112.7109	
SW-25	0.047	2036.069838	38.46707397	-121.4714058	4258746.641	633354.4296	
SW-26	0.119	5186.061811	38.46708681	-121.4699855	4258750.123	633478.322	
SW-27	0.203	8838.34559	38.468719	-121.4737118	4258925.852	633150.2206	
SW-28	0.052	2274.546772	38.46895558	-121.4735807	4258952.295	633161.227	
SW-29	0.443	19287.89658	38.4692343	-121.4733216	4258983.6	633183.3144	
SW-30	0.093	4052.27936	38.4690415	-121.4749807	4258959.806	633038.9308	
SW-31	0.008	344.5802785	38.46977591	-121.4749992	4259041.277	633035.9676	
SW-32	0.007	309.5555743	38.46816065	-121.475688	4258861.036	632978.8388	
P-1	3.311	144230.9844	38.47151577	-121.4744505	4259235.141	633080.6309	Linderiella occidentalis

Attachment C

Representative Site Photographs



Photograph 1. Facing south on access road through center of site on 14 February 2025. BP (38°28'8"N, 121°28'9"W)



Photograph 2. Facing southwest towards Seasonal Wetland SW-2 14 February 2025. BP (38°28'8"N, 121°28'9"W). *Linderiella occidentalis* found in this pool.



Photograph 3. Facing northeast towards Seasonal Wetland SW-28 with Seasonal Wetland SW-29 in the background on 14 February 2025. BP (38°28'7"N, 121°28'25"W)



Photograph 4. Facing southwest towards Seasonal Wetland SW-22 on 14 February 2025. BP (38°28'5"N, 121°28'25"W)



Photograph 5. Facing northeast in Seasonal Wetland SW-29 on 14 February 2025. BP (38°28'8"N, 121°28'24"W)