

APPENDIX C

AQUATIC RESOURCES DELINEATIONS



DRAFT
Aquatic Resources
Delineation Report

Stone Beetland

City of Sacramento, Sacramento County, California

January 2021



Prepared for:

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1.0 INTRODUCTION

This report presents the results of a delineation of aquatic resources (ARD) within the Stone Beetland Study Area (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 127-acre Study Area is located northeast of the intersection of Cosumnes River Boulevard and Delta Shores Circle in the City of Sacramento, Sacramento County, California. The Study Area is located within Sections 7, 8, 17, and 18; Township 7 North; Range 5 East (MDB&M) of the "Florin, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2018) (Figure 1).

1.1 Contact Information

Property Owner

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Agent

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Citrus Heights, California 95610

2.0 METHODOLOGY

Madrone senior biologist Matt Hirkala conducted an ARD within the Study Area on 20 September 2019 and 22 December 2020. Water features and data points were mapped in the field with an Arrow 100 GNSS unit, which is capable of sub-meter accuracy. Three-parameter data (vegetation, soils, and hydrology) were collected at each data point, documenting wetland/waters or upland status, as appropriate. An aquatic resources delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a). The field data was overlaid on an ortho-rectified aerial photograph flown 17 June 2020 (Maxar 2020) (Attachment A).

The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016b). U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List*, which went into effect on May 18, 2020, was used to determine the wetland indicator status of plants observed in the Study Area (USACE 2018). The *Jepson eFlora* (Jepson Flora Project 2020) was used for plant nomenclature, except where it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority.

3.0 EXISTING CONDITIONS

According to LiDAR elevation data provided to Sacramento County by Merrick & Company in 2004 and 2007, the Study Area is situated on relatively flat terrain at elevations ranging from approximately 6 to 18 feet above sea level.

Most of the site is characterized by flat terrain that has been historically leveled, ditched, and drained for agricultural use. The northeastern corner displayed uneven topography due to the presence of several trash and spoils piles; several “squatter” gardens were located within the Study Area along the northern fence line and appear to have been planted by residents from the abutting neighborhood to the north. Fallow agricultural lands occupy areas to the south and west, and the eastern boundary borders the toe of a large levee constructed along Morrison Creek. A portion of the Sacramento Regional Transit Light Rail “Blue Line” (Light Rail) parallels the eastern boundary just west of Morrison Creek. A newly constructed Light Rail station and detention basin are located directly adjacent to the Light Rail line; this station is not currently in use, though construction activities were observed during the 22 December 2020 site visit.

3.1 Terrestrial Vegetation Communities

3.1.1 Annual Brome Grassland

The majority of the Study Area supports fallow agricultural lands reverting to annual brome grasslands that are characterized by soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua*), rip-gut brome (*Bromus diandrus*), and perennial rye (*Lolium perenne*). Common herbaceous species include prickly lettuce (*Lactuca scariola*), yellow star-thistle (*Centaurea solstitialis*), and alkali mallow (*Malvella leprosa*). The perimeter of the site was disked to form firebreaks, but vegetation was present in these areas. The area immediately south of the abutting residential development to the north support a variety of non-native and ornamental trees and shrubs including fruitless mulberry (*Morus alba*) and tree of heaven (*Ailanthus altissima*).

3.1.2 Willow Riparian Woodland

A small willow riparian woodland comprised predominately of arroyo willow (*Salix lasiolepis*), sandbar willow (*Salix exigua*) and poison oak (*Toxicodendron diversilobum*) flank the banks of a small intermittent drainage in the southeast corner of the Study Area. A well-developed homeless encampment present during the 20 September 2019 site visit has since been abandoned. Much of the riparian corridor has been destroyed by fire – see photo point 9 in **Attachment B**.

3.1.2 Disturbed

Disturbed areas are restricted to the farm roads along the periphery of the Study Area and the vicinity of the Light Rail station that was undergoing construction at the time of the site visit. These areas are comprised of compacted earth and/or gravel. The edges of the fields support ruderal vegetation, including stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola tragus*), tumbleweed amaranth (*Amaranthus albus*), pigweed amaranth (*A. blitoides*), rough cocklebur (*Xanthium strumarium*), wild radish (*Raphanus sativus*),

milk thistle (*Silybum marianum*), and white goosefoot (*Chenopodium album*). Noted ruderal vegetation included bindweed (*Convolvulus arvensis*), black mustard (*Brassica nigra*), and broad leaf filaree (*Erodium botrys*).

3.2 Hydrology

The Study Area in general drains to the south towards an unnamed tributary to the Cosumnes River, which is located approximately 850 feet south of the parcel. The Cosumnes River is tributary to the Mokelumne River, which the USACE classifies as navigable from its mouth to Frandy Gage (3.5 miles upstream from New Hope Road). However, no surface connection to this unnamed tributary was observed during the site visit. Further information is provided below in the discussion of delineated aquatic features.

The Study Area is set within the Upper Cosumnes Sub-Basin (Hydrologic Unit Code 18040013) and the Upper Cosumnes River Watershed (1804001306) (USGS 2013).

3.3 Soils

The NRCS has mapped the six soil units listed below within the Study Area (Figure 2) (NRCS 2020):

1. Clear Lake clay, partially drained, 0 to 2% slopes, frequently flooded (114) – the Clear Lake component and the Dierssen and Egbert inclusions are classified as hydric. This soil map unit is non-saline to slightly saline; and the pH ranges from slightly acid to moderately alkaline within the upper portion of the root zone.
2. Clear Lake clay, hardpan substratum, drained, 0 to 1% slopes (115) – the Clear Lake component and the Cosumnes inclusion are classified as hydric. This soil map unit is non-saline to very slightly saline; and the pH ranges from slightly acid to moderately alkaline within the upper portion of the root zone.
3. Egbert clay, partially drained, 0 to 2% slopes (141) - the Egbert component and the Clear Lake, Gazwell, Laugenour, Scribner, and Valpac inclusions are classified as hydric. This soil map unit is non-saline to very slightly saline; and the pH ranges from slightly acid to slightly alkaline within the upper portion of the root zone.
4. Galt clay, 0 to 1% slopes, MLRA 17 (152) – the Galt component and the Clear Lake inclusion are classified as hydric. This soil map unit is non-saline; and the pH ranges from slightly acid to neutral within the upper portion of the root zone.
5. Galt clay, 0 to 4% slopes, MLRA 17 (153) – the Galt component and the Clear Lake inclusion are within the root zone. classified as hydric. This soil map unit is non-saline; and the pH ranges from slightly acid to neutral within the upper portion of the root zone.

6. Galt-Urban land complex, 0 to 1% slopes, MLRA 17 (154) – the Galt component and the Clear Lake and Egbert inclusions are classified as hydric. This soil map unit is non-saline; and the pH ranges from slightly acid to neutral within the upper portion of the root zone.

3.4 Driving Directions

To access the Study Area from Sacramento, drive south on Interstate 5 for approximately 9 miles and travel east after taking Exit 510 to Cosumnes River Boulevard. Continue east on Cosumnes River Boulevard for approximately 1.8 miles; the Study Area is located on the north side of Cosumnes River Boulevard.

4.0 RESULTS

A total of 0.542 acre of aquatic resources were delineated within the Study Area (Table 1).

Table 1. Aquatic Resources Mapped within the Study Area

Resource Type	Acreage
Detention Basin	0.242
Ephemeral Ditch	0.017
Intermittent Ditch	0.283
Study Area Total	0.542

Representative photos of the Study Area are included in **Attachment B**. Arid West Wetland Determination Data Forms are included in **Attachment C**, maps of the aquatic resources are included as **Figure 3** and **Attachment A**, and a list of the plant species observed in the Study Area with their wetland indicator status is included in **Attachment D**. GIS Shapefiles and the *Aquatic Resources Excel Spreadsheet* for mapped aquatic resources within the Study Area are included on a CD in **Attachment E**. Each of the feature types is described below.

4.1 Detention Basin

One approximately 0.242-acre detention basin was delineated within the Study Area. Based on a review of historic aerial photography available on Google Earth and HistoricAerials.com, this feature was excavated prior to February of 2014 as part of the newly constructed Light Rail station located along the east edge of the Study Area west of the Morrison Creek levee (photo point 13 in **Attachment B**). This feature is completely surrounded by cyclone fencing associated with the Light Rail station and supported hydrophytic vegetation such as perennial ryegrass (*Lolium perenne*) and tall flat-sedge (*Cyperus eragrostis*). The detention basin is connected to an intermittent drainage ditch that parallels the west side of the Light Rail tracks by way of a culvert. No data points were taken in this feature due to its obvious break with the surrounding uplands.

4.2 Ephemeral Ditches

Two ephemeral ditches totaling approximately 0.017 acre were mapped within the Study Area. These two features were originally connected, but were permanently separated by a construction haul road in 2006. The northern ephemeral ditch (ED-2) drains through a culvert to the neighboring parcel to the north, which is topographically several feet lower than the Study Area at this location. ED-1 currently drains southward into a storm drain, but originally was part of a larger irrigation system extending to the south. This feature was truncated some time in 2005 during the construction/extension of Cosumnes River Boulevard south of the Study Area.

These features displayed a very minor bed and bank and the destruction of terrestrial vegetation, which were used to delineate their extent. Plant species present predominantly included perennial ryegrass (*Lolium perenne*) and Mediterranean barley (*Hordeum marinum*). The lack of algal matting/biotic crust infers that ponded water does not persist within these features.

4.3 Intermittent Ditches

Two intermittent ditches totaling approximately 0.283 acre were mapped within the Study Area. In 1957 these two intermittent ditches were part of a continuous irrigation network that was also connected to the above-discussed ephemeral ditches as well as off-site irrigation features to the south; however, ditch realignments, the construction of the Light Rail station and tracks, and the construction of Cosumnes River Boulevard have fragmented these features. Currently, ID-1 is connected to a culvert that daylights under the Light Rail tracks to the east, and ID-2, located in the southeast corner of the Study Area, runs eastward then northward at the base of the Light Rail tracks. It too daylights by way of a culvert to the east under the Light Rail tracks. ID-2 extends less than 20 feet to the south of the Study Area boundary before dead ending.

These features also displayed a bed and bank and the destruction of terrestrial vegetation, which were used to delineate their extent. Plant species present predominantly included perennial ryegrass (*Lolium perenne*) and Mediterranean barley (*Hordeum marinum*), though the southeasternmost extent of ID-2 was mostly devoid of vegetation. These features were classified as intermittent since algal matting was present in the deeper reaches and inundation was present in some historic aerial photos taken during the wet-season.

5.0 CONCLUSION

With the publication and implementation of the 2020 Navigable Waters Protection Rule (2020 Rule), Madrone has analyzed the jurisdictional status of the aquatic resources within the Project site under the new rule. We believe none of the aquatic resources mapped within the Study Area are subject to USACE jurisdiction under the 2020 Rule. It is our opinion that all of the drainage ditches would be considered non-jurisdictional under Sections 328.3(b)(7) and (b)(8) of the 2020 Rule as they are all ditches constructed in uplands solely for the purpose of containing and conveying irrigation water, and as they are not relocated tributaries, excavated in tributaries, or drain wetlands.

The applicant is requesting an Approved Jurisdictional Determination (PJD) for the aquatic resources mapped within the Study Area (**Attachment A**). A signed statement providing USACE staff accompanied access to the Study Area is included as **Attachment G**.

6.0 REFERENCES

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U.S. Department of the Interior, Geological Survey (USGS). 2013. *Watershed Boundary Dataset*. Geological Survey. Reston, Virginia.

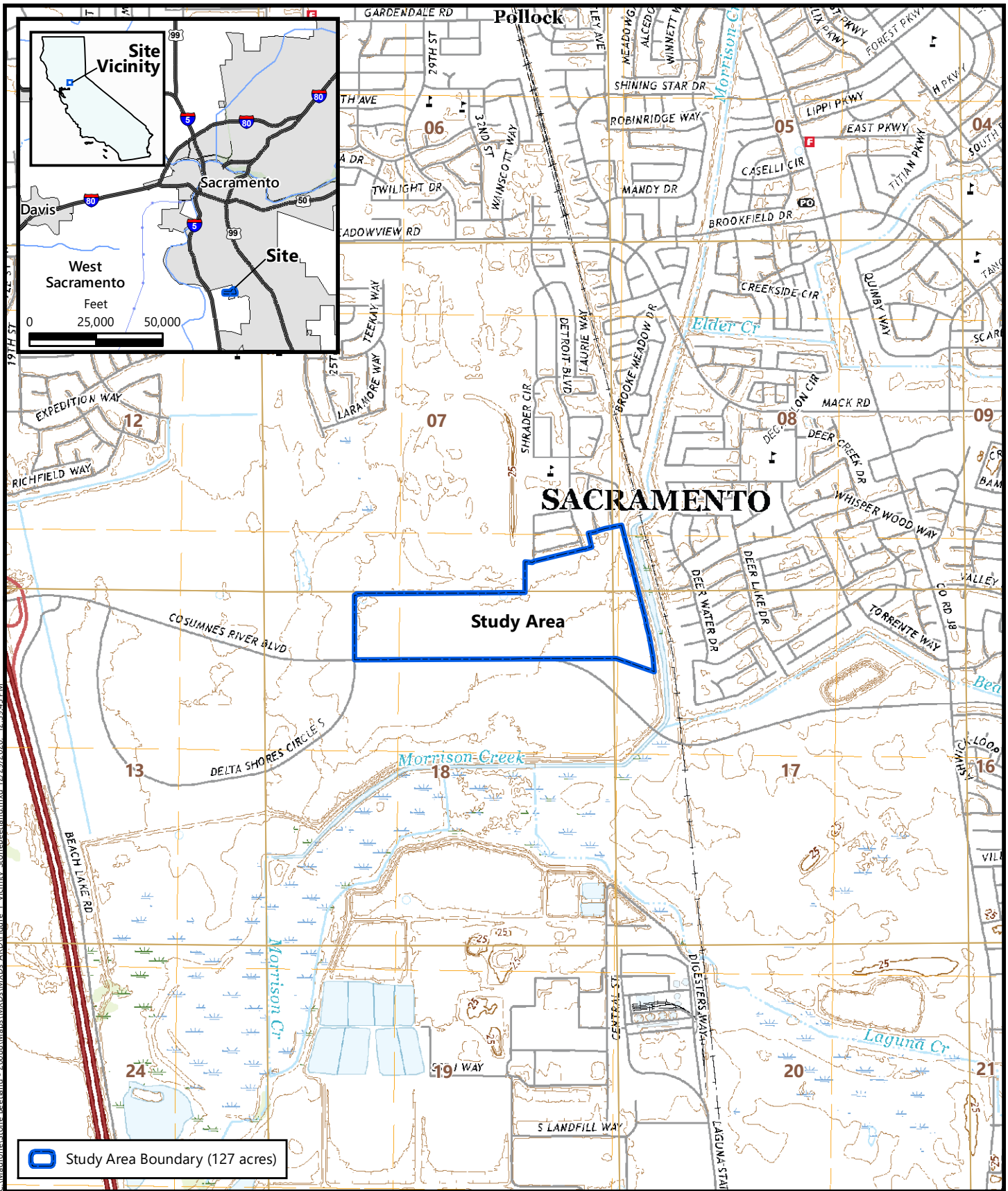
U.S. Department of the Interior, Geological Survey (USGS). 2018. *"Florin, California" 7.5-minute Quadrangle*. Geological Survey. Denver, Colorado.

Figures

Figure 1. Site and Vicinity Map

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources




**Figure 1
Site and Vicinity**









Source: United States Geologic Survey, 2018.
 "Florin, California" 7.5-Minute Topographic Quadrangle
 Sections 7-8, and 17-18, Township 7 North, Range 5 East
 Longitude -121.469194, Latitude 38.466003

Stone Beetland
 Sacramento, Sacramento County, California

C:\Madrona\Stone Beetland - 2008\Map\MXD\MXD\ARDS\Figure 1 Vicinity StoneBeetland.mxd 12/29/2020 12:39:45 PM

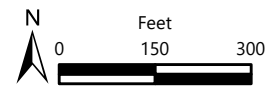
 Study Area Boundary (127 acres)

Soil Map Unit

-  114 - Clear Lake clay, partially drained, 0 to 2% slopes, frequently flooded
-  115 - Clear Lake clay, hardpan substratum, drained, 0 to 1% slopes
-  141 - Egbert clay, partially drained, 0 to 2% slopes
-  152 - Galt clay, 0 to 1% slopes, MLRA 17
-  153 - Galt clay, 0 to 4% slopes, MLRA 17
-  154 - Galt-Urban land complex, 0 to 1% slopes, MLRA 17



C:\Madrone\Stone Beetland - 20188\Map\Map\MXD\ARD\Figure 2 - NRCS StoneBeetland.mxd, nbente, 12/29/2020, 13:04







Soil Survey Source: *USDA, Soil Conservation Service.*
 Soil Survey Geographic (SSURGO) database for Sacramento County, California
 Aerial Source: Maxar, 17 June 2020

Figure 2
Natural Resources Conservation
Service Soils

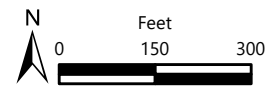
Stone Beetland
 Sacramento, Sacramento County, California





-  Study Area Boundary (127 acres)
- Aquatic Resources (0.542 acre)**
- Other Waters**
-  Detention Basin (0.242 acre)
-  Ephemeral Ditch (0.017 acre)
-  Intermittent Ditch (0.283 acre)

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Aerial Source: Maxar, 17 June 2020

Figure 3
Aquatic Resources

Stone Beetland
Sacramento, Sacramento County, California



Attachments

Attachment A. Aquatic Resources Delineation – Stone Beetland

Attachment B. Photo Points

Attachment C. Arid West Wetland Determination Data Forms

Attachment D. Plant Species Observed within the Study Area

Attachment E. GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment F. Access Letter

Attachment A

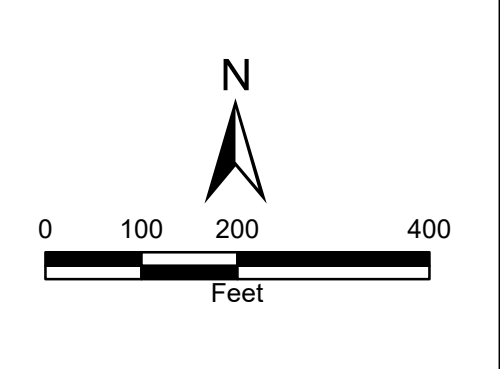
Aquatic Resources Delineation – Stone Beetland

AQUATIC RESOURCE FEATURES			
OTHER WATERS			
Detention Basin			
Feature ID	Acree		
DB-1	0.242		
Total:	0.242		
Ephemeral Ditch			
Feature ID	Acree	Linear Feet	
ED-1	0.007	288	
ED-2	0.010	432	
Total:	0.017	720	
Intermittent Ditch			
Feature ID	Acree	Linear Feet	
ID-1	0.160	1,347	
ID-2	0.123	1,071	
Total:	0.283	2,418	
Total Other Waters: 0.542 3,138			
Aquatic Resources Total: 0.542 acre			



Notes:
Map Scale: 1 inch = 200 feet
Coordinate System: NAD 1983 State Plane California II
Datum: NAD83 (North American Datum 1983)
Projection: Lambert Conformal Conic
Vertical Data: NAVD88 (North American Vertical Datum 1988)
Aerial Base: Maxar Technologies
Aerial Base Flown: 17 June 2020
Topographic Contours: MacKay & Samps

Date Map Prepared: 19 January 2021
Map Prepared by: N. Bente/M. Hirkala
Delineation Performed by: M. Hirkala
Definitions:
 NAD = North American Datum
 NAVD = North American Vertical Datum
 NED = National Elevation Dataset




Prepared For:
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 c/o Clifton Taylor
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 Roseville, CA 95678

- Study Area Boundary (127 acres)
- Reference Point
- Data Point
- Culvert
- Ground Surface Elevation, 1 foot contour

- Aquatic Resources (0.542 acre)**
- Detention Basin (0.242 acre)
 - Ephemeral Ditch (0.017 acre)
 - Intermittent Ditch (0.283 acre)

Aquatic Resources Delineation
Stone Beetland
 Sacramento, Sacramento County, California, California



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Attachment B

Photo Points





Photo Point 01- Lat.: 38.466781/Long.: -121.477273; Compass Angle: 90°



Photo Point 01- Lat.: 38.466781/Long.: -121.477273; Compass Angle: 0°



Photo Point 01- Lat.: 38.466781/Long.: -121.477273; Compass Angle: 180°



Photo Point 02- Lat.: 38.465178/Long.: -121.477701; Compass Angle: 0°



Photo Point 02- Lat.: 38.465178/Long.: -121.477701; Compass Angle: 180°



Photo Point 02- Lat.: 38.465178/Long.: -121.477701; Compass Angle: 270°



Photo Point 02- Lat.: 38.465178/Long.: -121.477701; Compass Angle: 0°



Photo Point 03 - Lat.: 38.464559/Long.: -121.471423; Compass Angle: 0°



Photo Point 03 - Lat.: 38.464559/Long.: -121.471423; Compass Angle: 180°



Photo Point 03 - Lat.: 38.464559/Long.: -121.471423; Compass Angle: 270°



Photo Point 03 - Lat.: 38.464559/Long.: -121.471423; Compass Angle: 90°



Photo Point 04 - Lat.: 38.465764/Long.: -121.471415; Compass Angle: 0°



Photo Point 04 - Lat.: 38.465764/Long.: -121.471415; Compass Angle: 270°



Photo Point 05 - Lat.: 38.466803/Long.: -121.471392; Compass Angle: 180°



Photo Point 05 - Lat.: 38.466803/Long.: -121.471392; Compass Angle: 0°



Photo Point 06 - Lat.: 38.466853/Long.: -121.466706; Compass Angle: 90°



Photo Point 06 - Lat.: 38.466853/Long.: -121.466706; Compass Angle: 90°



Photo Point 07 - Lat.: 38.468787/Long.: -121.464556; Compass Angle: 180°



Photo Point 07 - Lat.: 38.468787/Long.: -121.464556; Compass Angle: 90°



Photo Point 07 - Lat.: 38.468787/Long.: -121.464556; Compass Angle: 0°



Photo Point 07 - Lat.: 38.468787/Long.: -121.464556; Compass Angle: 270°



Photo Point 08 - Lat.: 38.464237/Long.: -121.464272; Compass Angle: 90°



Photo Point 08 - Lat.: 38.464237/Long.: -121.464272; Compass Angle: 165°



Photo Point 09 - Lat.: 38.464052/Long.: -121.463081; Compass Angle: 90°



Photo Point 09 - Lat.: 38.464052/Long.: -121.463081; Compass Angle: 180°



Photo Point 09 - Lat.: 38.464052/Long.: -121.463081; Compass Angle: 45°



Photo Point 10 - Lat.: 38.464276/Long.: -121.462713; Compass Angle: 0°



Photo Point 10 - Lat.: 38.464276/Long.: -121.462713; Compass Angle: 180°



Photo Point 11 - Lat.: 38.464048/Long.: -121.462451; Compass Angle: 270°



Photo Point 12 - Lat.: 38.465578/Long.: -121.462731; Compass Angle: 270°



Photo Point 13 - Lat.: 38.464828/Long.: -121.46287; Compass Angle: 300°



Photo Point 14 - Lat.: 38.466795/Long.: -121.464129; Compass Angle: 90°



Photo Point 14 - Lat.: 38.466795/Long.: -121.464129; Compass Angle: 270°



Photo Point 15 - Lat.: 38.467209/Long.: -121.463167; Compass Angle: 270°

Attachment C

Arid West Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 1
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.465862 Long: -121.476784 Datum: NAD83
 Soil Map Unit Name: Galt clay, 0 to 4% slopes, MLRA 17 (153) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes _____ No <u>x</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Remarks:	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>50</u> x3 = <u>150</u> FACU species <u>55</u> x4 = <u>220</u> UPL species <u>5</u> x5 = <u>25</u> Column Totals: <u>110</u> (A) <u>395</u> (B) Prevalence Index = B/A = <u>3.6</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: 4'x4')				
1. <u>Bromus hordeaceus</u>	<u>55</u>	<u>x</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Lolium perenne</u>	<u>45</u>	<u>x</u>	<u>FAC</u>	
3. <u>Epilobium brachycarpum</u>	<u>5</u>		<u>FAC</u>	
4. <u>Convolvulus arvensis</u>	<u>5</u>		<u>UPL</u>	
5. _____	_____			
6. _____	_____			
7. _____	_____			
8. _____	_____			
	<u>110</u>	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>x</u>
2. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR3/2	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes _____ No X _____
Surface Water Present? Yes _____ No X _____ Depth (inches): _____	
Water Table Present? Yes _____ No X _____ Depth (inches): _____	
Saturation Present? Yes _____ No X _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 2
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.465986 Long: -121.472752 Datum: NAD83
 Soil Map Unit Name: Galt clay, 0 to 4% slopes, MLRA 17 (153) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

<p><u>Tree Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Sapling/Shrub Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Herb Stratum</u> (Plot size: 4'x4')</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Avena fatua</u></td><td align="center"><u>50</u></td><td align="center"><u>x</u></td><td align="center"><u>UPL</u></td></tr> <tr><td>2. <u>Bromus hordeaceus</u></td><td align="center"><u>30</u></td><td align="center"><u>x</u></td><td align="center"><u>FACU</u></td></tr> <tr><td>3. <u>Lolium perenne</u></td><td align="center"><u>20</u></td><td align="center"><u>x</u></td><td align="center"><u>FAC</u></td></tr> <tr><td>4. <u>Lactuca serriola</u></td><td align="center"><u>1</u></td><td></td><td align="center"><u>FACU</u></td></tr> <tr><td>5. <u>Holocarpha virgata</u></td><td align="center"><u>T</u></td><td></td><td align="center"><u>UPL</u></td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>101</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Woody Vine Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u></p>		Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____		<u>0</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____		<u>0</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Avena fatua</u>	<u>50</u>	<u>x</u>	<u>UPL</u>	2. <u>Bromus hordeaceus</u>	<u>30</u>	<u>x</u>	<u>FACU</u>	3. <u>Lolium perenne</u>	<u>20</u>	<u>x</u>	<u>FAC</u>	4. <u>Lactuca serriola</u>	<u>1</u>		<u>FACU</u>	5. <u>Holocarpha virgata</u>	<u>T</u>		<u>UPL</u>	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____		<u>101</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____		<u>0</u>	=Total Cover		<p>Dominance Test worksheet:</p> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
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Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-13	10YR3/1	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No X _____</p>
<p>Remarks:</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Water Table Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Saturation Present? Yes _____ No X _____ Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No X _____</p>	
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks:</p>		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 3
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): abandoned ditch Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.46498 Long: -121.471424 Datum: NAD83
 Soil Map Unit Name: Clear Lake clay, partially drained, 0-2% slopes, frequently flooded (114) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>x</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: This data point was taken in an abandoned ephemeral ditch. No algal matting or sediment deposits were noted; however, a bed and bank was present along with shelving and the destruction of terrestrial vegetation.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Herb Stratum</u> (Plot size: 1'x4')				
1. <u>Lolium perenne</u>	<u>10</u>	<u>x</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>10</u> =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>90</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR3/2	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No X _____</p>
<p>Remarks:</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Water Table Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Saturation Present? Yes _____ No X _____ Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No X _____</p>	
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks: No sediment deposits or algal matting observed.</p>		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 4
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): topographic depression Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.468848 Long: -121.464193 Datum: NAD83
 Soil Map Unit Name: Clear Lake clay, partially drained, 0-2% slopes, frequently flooded (114) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes <u>x</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Remarks:	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>25</u> x3 = <u>75</u> FACU species <u>25</u> x4 = <u>100</u> UPL species <u>60</u> x5 = <u>300</u> Column Totals: <u>110</u> (A) <u>475</u> (B) Prevalence Index = B/A = <u>4.3</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: 4'x4')				
1. <u>Convolvulus arvensis</u>	<u>45</u>	<u>x</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Lolium perenne</u>	<u>20</u>	<u>x</u>	<u>FAC</u>	
3. <u>Bromus hordeaceus</u>	<u>20</u>	<u>x</u>	<u>FACU</u>	
4. <u>Avena fatua</u>	<u>15</u>		<u>UPL</u>	
5. <u>Briza minor</u>	<u>5</u>		<u>FAC</u>	
6. <u>Lactuca serriola</u>	<u>5</u>		<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>110</u>	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>x</u>
2. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-8	10YR3/2	100					see remarks	compacted gravelly clay loam

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (minimum of one required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes _____ No X Depth (inches): _____ Water Table Present? Yes _____ No X Depth (inches): _____ Saturation Present? Yes _____ No X Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No X
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 5
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.466996 Long: -121.465337 Datum: NAD83
 Soil Map Unit Name: Clear Lake clay, partially drained, 0-2% slopes, frequently flooded (114) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes _____ No <u>x</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>50</u> x4 = <u>200</u> UPL species <u>20</u> x5 = <u>100</u> Column Totals: <u>70</u> (A) <u>300</u> (B) Prevalence Index = B/A = <u>4.3</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: 4'x4')				
1. <i>Malvella leprosa</i>	45	x	FACU	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <i>Avena fatua</i>	20	x	UPL	
3. <i>Lactuca serriola</i>	5		FACU	
4. _____	_____			
5. _____	_____			
6. _____	_____			
7. _____	_____			
8. _____	_____			
	<u>70</u>	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____			Hydrophytic Vegetation Present? Yes <u>x</u> No _____
2. _____	_____			
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>35</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-14	10YR3/1	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No X _____ Depth (inches): _____ Water Table Present? Yes _____ No X _____ Depth (inches): _____ Saturation Present? Yes _____ No X _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No X _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 6
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.466372 Long: -121.467599 Datum: NAD83
 Soil Map Unit Name: Clear Lake clay, partially drained, 0-2% slopes, frequently flooded (114) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes _____ No <u>x</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Remarks:	

VEGETATION – Use scientific names of plants.

<p><u>Tree Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Sapling/Shrub Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Herb Stratum</u> (Plot size: 4'x4')</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. <u>Centaurea solstitialis</u></td><td align="center"><u>95</u></td><td align="center"><u>x</u></td><td align="center"><u>UPL</u></td></tr> <tr><td>2. <u>Bromus hordeaceus</u></td><td align="center"><u>5</u></td><td></td><td align="center"><u>FACU</u></td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>100</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p><u>Woody Vine Stratum</u> (Plot size: _____)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:15%;">Absolute % Cover</th> <th style="width:15%;">Dominant Species?</th> <th style="width:10%;">Indicator Status</th> </tr> </thead> <tbody> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td></td> <td align="center"><u>0</u></td> <td align="center">=Total Cover</td> <td></td> </tr> </tbody> </table> <p>% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust <u>0</u></p>		Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____		<u>0</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____		<u>0</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. <u>Centaurea solstitialis</u>	<u>95</u>	<u>x</u>	<u>UPL</u>	2. <u>Bromus hordeaceus</u>	<u>5</u>		<u>FACU</u>	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	6. _____	_____	_____	_____	7. _____	_____	_____	_____	8. _____	_____	_____	_____		<u>100</u>	=Total Cover			Absolute % Cover	Dominant Species?	Indicator Status	1. _____	_____	_____	_____	2. _____	_____	_____	_____		<u>0</u>	=Total Cover		<p>Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)</p> <p>Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>5</u> x4 = <u>20</u> UPL species <u>95</u> x5 = <u>475</u> Column Totals: <u>100</u> (A) <u>495</u> (B) Prevalence Index = B/A = <u>5.0</u></p> <p>Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0¹ _____ Morphological Adaptation¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p>
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Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-14	10YR3/2	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No X _____	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No X _____
Water Table Present? Yes _____ No X _____	Depth (inches): _____	
Saturation Present? Yes _____ No X _____	Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 7
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.464191 Long: -121.464025 Datum: NAD83
 Soil Map Unit Name: Egbert clay, partially drained, 0 to 2% slopes (141) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Hydric Soil Present? Yes <u>x</u> No _____	
Wetland Hydrology Present? Yes <u>x</u> No _____	

Remarks: This data point was taken in an intermittent ditch. A bed and bank and an ordinary high water mark are present.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 =Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0 =Total Cover				
<u>Herb Stratum</u> (Plot size: 4'x4')				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Malvella leprosa</i>	20	x	FACU	
2. <i>Asclepias fascicularis</i>	1		FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
21 =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>x</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 =Total Cover				
% Bare Ground in Herb Stratum <u>80</u>	% Cover of Biotic Crust <u>100</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-10	10YR3/1	95	10YR4/6	5	C	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Biotic crust present in the form of algal matting. Inundation present on Google Earth aerial photography - February 2018.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 8
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 4
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.464233 Long: -121.463994 Datum: NAD83
 Soil Map Unit Name: Egbert clay, partially drained, 0 to 2% slopes (141) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes <u>x</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Remarks:	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>80</u> x4 = <u>320</u> UPL species <u>20</u> x5 = <u>100</u> Column Totals: <u>100</u> (A) <u>420</u> (B) Prevalence Index = B/A = <u>4.2</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Herb Stratum (Plot size: 4'x4')				
1. <u>Bromus hordeaceus</u>	<u>80</u>	<u>x</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Carduus pycnocephalus</u>	<u>20</u>	<u>x</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>100</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>x</u>
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-12	10YR2/1	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No X _____	Depth (inches): _____	
Water Table Present? Yes _____ No X _____	Depth (inches): _____	
Saturation Present? Yes _____ No X _____	Depth (inches): _____	
(includes capillary fringe)		Wetland Hydrology Present? Yes _____ No X _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Stone Beetland City/County: Sacramento County Sampling Date: 12/22/20
 Applicant/Owner: Taylor Builders, LLC State: CA Sampling Point: 9
 Investigator(s): Matt Hirkala Section, Township, Range: Section 28, Township 7 North, Range 7 East, MDB&M
 Landform (hillslope, terrace, etc.): topographic depression Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.464261 Long: -121.463763 Datum: NAD83
 Soil Map Unit Name: Clear Lake clay, hardpan substratum, drained, 0 to 1% slopes (115) NWI Classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>x</u> No _____ Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes _____ No <u>x</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>x</u>
Remarks:	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>85</u> x3 = <u>255</u> FACU species <u>21</u> x4 = <u>84</u> UPL species <u>40</u> x5 = <u>200</u> Column Totals: <u>146</u> (A) <u>539</u> (B) Prevalence Index = B/A = <u>3.7</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Herb Stratum (Plot size: 4'x4')				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Lolium perenne</u>	60	x	FAC	
2. <u>Epilobium brachycarpum</u>	20	x	FAC	
3. <u>Bromus hordeaceus</u>	20	x	FACU	
4. <u>Phalaris paradoxa</u>	5		FAC	
5. <u>Lactuca serriola</u>	1		FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>106</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes <u>x</u> No _____

Remarks:

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-14	10YR3/1	100					clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes _____ No X _____</p>
<p>Remarks:</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><u>Secondary Indicators (2 or more required)</u></p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Water Table Present? Yes _____ No X _____ Depth (inches): _____</p> <p>Saturation Present? Yes _____ No X _____ Depth (inches): _____ (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No X _____</p>	
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>		
<p>Remarks:</p>		

Attachment D

Plant Species Observed within the Study Area

**Plant Species Observed within the Stone Beetland Study Area
20 September 2019 and 22 December 2020**

Species Name	Common Name	Wetland Indicator Status
<i>Abutilon theophrasti</i>	Velvet-leaf	UPL
<i>Amaranthus blitoides</i>	Prostrate pigweed	FACU
<i>Ailanthus altissima</i>	Tree-of-heaven	FACU
<i>Amsinckia intermedia</i>	Common fiddleneck	UPL
<i>Arundo donax</i>	Giant reed	FACW
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	FAC
<i>Avena fatua</i>	Wild oat	UPL
<i>Baccharis pilularis</i>	Coyote brush	UPL
<i>Brassica nigra</i>	Black mustard	UPL
<i>Briza minor</i>	Lesser quaking grass	FAC
<i>Bromus diandrus</i>	Ripgut grass	UPL
<i>Bromus hordeaceus</i>	Soft chess	FACU
<i>Carduus pycnocephalus</i>	Italian thistle	UPL
<i>Centaurea solstitialis</i>	Yellow star-thistle	UPL
<i>Chenopod album</i>	Lamb's quarter	FACU
<i>Cichorium intybus</i>	Chicory	FACU
<i>Cirsium vulgare</i>	Bull thistle	FACU
<i>Conium maculatum</i>	Poison-hemlock	FACW
<i>Convolvulus arvensis</i>	Bindweed	UPL
<i>Croton setigerus</i>	Doveweed	UPL
<i>Cynodon dactylon</i>	Bermuda grass	FACU
<i>Cyperus eragrostis</i>	Tall nutsedge	FACW
<i>Distichlis spicata</i>	Coastal salt grass	FAC
<i>Dittrichia graveolens</i>	Stinkwort	UPL
<i>Eleocharis palustris</i>	Common spike rush	OBL
<i>Elymus caput-medusae</i>	Medusa-head	UPL
<i>Epilobium brachycarpum</i>	Panicled willow-herb	FAC
<i>Erigeron canadensis</i>	Canada horseweed	FACU
<i>Erodium botrys</i>	Long-beaked stork's bill	FACU
<i>Erodium cicutarium</i>	Red-stemmed filaree	UPL
<i>Erodium moschatum</i>	White-stemmed filaree	UPL
<i>Euphorbia maculata</i>	Spotted sandmat	UPL
<i>Galium aparine</i>	Goose grass	FACU
<i>Geranium dissectum</i>	Cut leaf geranium	UPL
<i>Helianthus annuus</i>	Common sunflower	UPL
<i>Helminthotheca echioides</i>	Akan asante	FAC
<i>Heterotheca grandiflora</i>	Telegraph weed	UPL

Species Name	Common Name	Wetland Indicator
		Status
<i>Holocarpha virgata</i>	Narrow tar plant	UPL
<i>Hordeum marinum</i>	Seaside barley	FAC
<i>Hordeum murinum</i>	Wall barley	FACU
<i>Juglans nigra</i>	Black walnut	UPL
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Lepidium latifolium</i>	Broad-leaf pepperwort	FAC
<i>Lolium perenne</i>	Perennial rye	FAC
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	OBL
<i>Malva parviflora</i>	Cheeseweed mallow	UPL
<i>Malvella leprosa</i>	Alkali-mallow	FACU
<i>Marrubium vulgare</i>	White horehound	FACU
<i>Matricaria discoidea</i>	Pineapple-weed	FACU
<i>Medicago polymorpha</i>	Toothed medick	FACU
<i>Morus albus</i>	Mulberry	UPL
<i>Paspalum dilatatum</i>	Dallis grass	FAC
<i>Persicaria punctata</i>	Dotted smartweed	OBL
<i>Phalaris aquatica</i>	Harding grass	FACU
<i>Phalaris paradoxa</i>	Hood canary grass	FAC
<i>Pistacia chinensis</i>	Chinese pistache	UPL
<i>Plantago lanceolata</i>	English plantain	FAC
<i>Poa annua</i>	Annual blue grass	FAC
<i>Polygonum aviculare</i>	Prostrate knotweed	FAC
<i>Polypogon monspeliensis</i>	Annual rabbitfoot grass	FACW
<i>Portulaca oleracea</i>	Purslane	FAC
<i>Prunus dulcis</i>	Almond	UPL
<i>Raphanus sativus</i>	Radish	UPL
<i>Rubus armeniacus</i>	Himalayan blackberry	FAC
<i>Rumex conglomeratus</i>	Sharp dock	FACW
<i>Rumex crispus</i>	Curly dock	FAC
<i>Salix exigua</i>	Narrowleaf willow	FACW
<i>Salix gooddingii</i>	Goodding's black willow	FACW
<i>Salix lasiolepis</i>	Arroyo willow	FACW
<i>Silybum marianum</i>	Milk thistle	UPL
<i>Sonchus asper</i>	Spiny-leaf sow-thistle	FAC
<i>Sorghum halepense</i>	Johnson grass	FACU
<i>Stellaria media</i>	Common chickweed	FACU
<i>Toxicodendron diversilobum</i>	Poison oak	UPL
<i>Tribulus terrestris</i>	Puncture vine	UPL
<i>Veronica peregrina</i>	Neck weed	FAC
<i>Vitis californica</i>	Wild grape	FACU

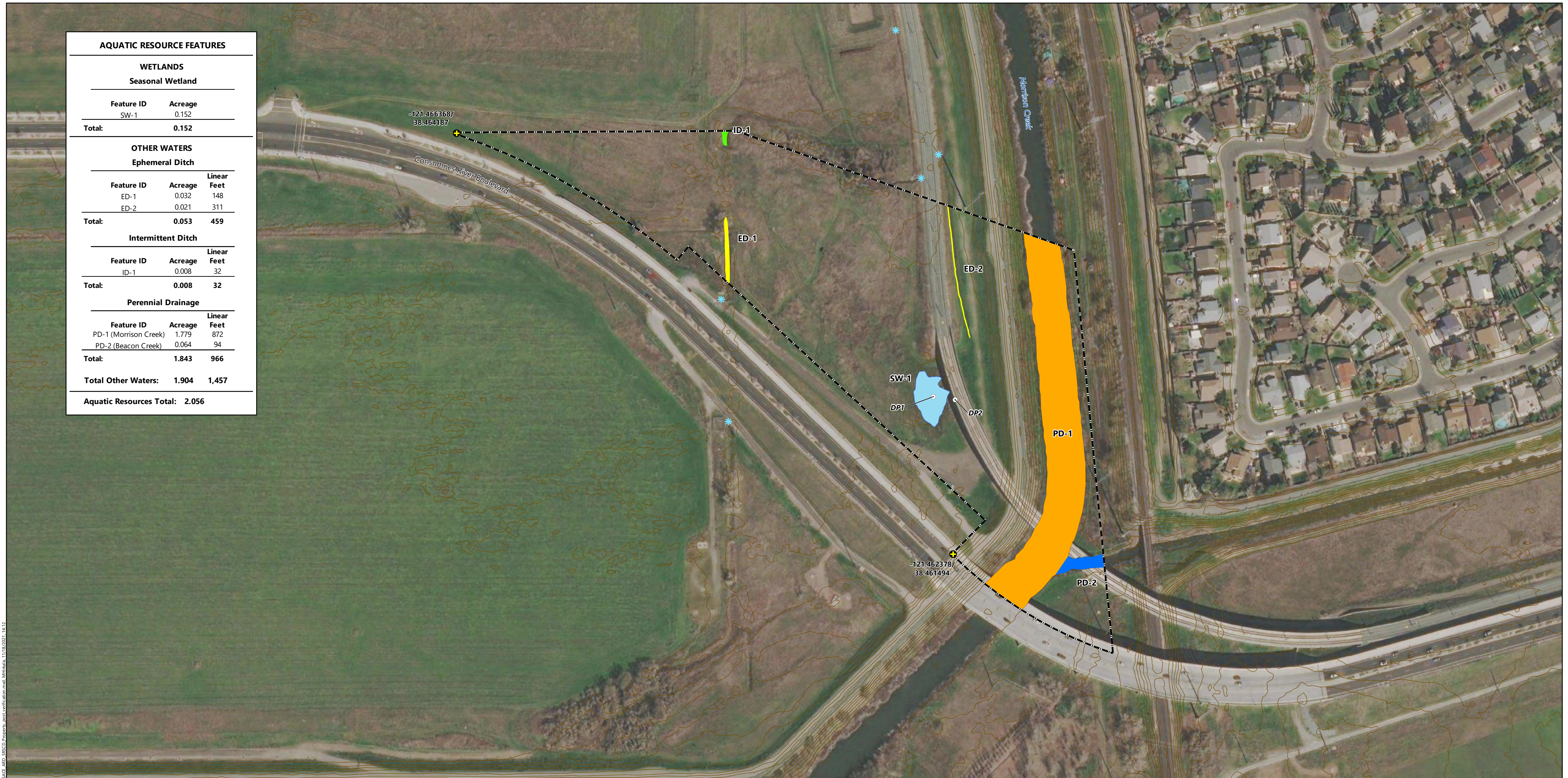
Species Name	Common Name	Wetland Indicator Status
<i>Vicia villosa</i> subsp. <i>villosa</i>	Winter vetch	UPL
<i>Vulpia myuros</i>	Rat-tail six-weeks grass	FACU
<i>Xanthium strumarium</i>	Rough cocklebur	FAC

Attachment E

GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment F

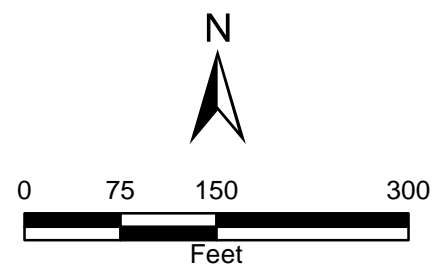
Access Letter



AQUATIC RESOURCE FEATURES			
WETLANDS			
Seasonal Wetland			
Feature ID	Acreage		
SW-1	0.152		
Total:	0.152		
OTHER WATERS			
Ephemeral Ditch			
Feature ID	Acreage	Linear Feet	
ED-1	0.032	148	
ED-2	0.021	311	
Total:	0.053	459	
Intermittent Ditch			
Feature ID	Acreage	Linear Feet	
ID-1	0.008	32	
Total:	0.008	32	
Perennial Drainage			
Feature ID	Acreage	Linear Feet	
PD-1 (Morrison Creek)	1.779	872	
PD-2 (Beacon Creek)	0.064	94	
Total:	1.843	966	
Total Other Waters:	1.904	1,457	
Aquatic Resources Total:	2.056		

Notes:
Map Scale: 1 inch = 150 feet
Coordinate System: NAD 1983 State Plane California II
Datum: NAD83 (North American Datum 1983)
Projection: Lambert Conformal Conic
Vertical Data: NAVD88 (North American Vertical Datum 1988)
Aerial Base: Sacramento County 2018
Aerial Base Flown: 26 March 2018
Topographic Contours: Merrick & Company

Date Map Prepared: 9 November 2021
Map Prepared by: M. Fremont/M. Hirkala
Delineation Performed by: M. Hirkala
Definitions:
 NAD = North American Datum
 NAVD = North American Vertical Datum
 NED = National Elevation Dataset



Prepared For:
Taylor Builders, LLC
 c/o Clifton Taylor
 508 Gibson Drive, Suite 260
 Roseville, CA 95678

- Study Area Boundary (15 acres)
- Data Point
- Culvert
- Ground Surface Elevation
- Reference Point

- Aquatic Resources (2.056 acres)**
- Wetlands**
- Seasonal Wetland (0.152 acre)
- Other Waters**
- Ephemeral Ditch (0.053 acre)
 - Intermittent Ditch (0.008 acre)
 - Perennial Drainage - Beacon Creek (0.064 acre)
 - Perennial Drainage - Morrison Creek (1.779 acres)

Aquatic Resources Delineation
SRCSO Property
 Sacramento, Sacramento County, California, California



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