



Aquatic Resources Delineation Report

Pedrick Road

Solano County
October 2023



Prepared for:

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Pedrick Road**

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1.0 INTRODUCTION

This report presents the results of a delineation of aquatic resources within the Pedrick Road Property (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 37-acre Study Area is located south of Highway 80 and east of Pedrick Road in the Town of Dixon, Solano County, California, corresponding to Solano County Assessor's Parcel Number 011-010-080. The Study Area is located in a portion of Section 1, Township 7 North, Range 5 East (MDB&M) of the "Dixon California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) at a Latitude 38.482844°, Longitude -121.807263 (Figure 1).

1.1 Contact Information

Property Owner

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2.0 METHODOLOGY

Madrone senior biologist Bonnie Peterson conducted a delineation of aquatic resources within the Study Area on 15 April and 2 September 2022. Data points were mapped in the field with a GPS unit capable of sub-meter accuracy (Arrow 100). Three-parameter data (vegetation, soils, and hydrology) were collected at each data point, documenting wetland/waters or upland status, as appropriate. The delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a). The GPS data was overlaid on an ortho-rectified aerial photograph (Maxar 2022).

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* (USACE 2023) was used to determine the wetland indicator status of plants observed in the Study Area. The *Jepson eFlora* (Jepson Flora Project 2023) was used for plant nomenclature, except where it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority on the data sheets.

3.0 EXISTING CONDITIONS

The Study Area is comprised of a leveled agricultural land at an elevation of approximately 65-ft above mean sea level. The Study Area is bound by Interstate 80 to the northwest, a stormwater basin and industrial site to the north, Pedrick Road to the east, and agricultural land to the south. The surrounding lands in general represent agricultural lands.

A shallow roadside ditch is located north of the Study Area and is directed through a culvert pipe into a box inlet structure in the northeastern corner of the Study Area. This box culvert drains to an off-site stormwater basin. A similarly shallow roadside feature is observable along Pedrick Road. The Study Area is dry land farmed and has been utilized as a hay field for a number of years and terrestrial plant communities in the Study Area are limited to agricultural lands and with ruderal fringes. During the April 2022 site visit the Study Area had been closely mowed, and by September it had been disked and was minimally vegetated. Scattered walnut trees (*Juglans sp.*) are located along the fringes of the Study Area along the Interstate 80 frontage.

3.1 Terrestrial Plant Communities

3.1.1 Agricultural

Dry farmed areas within the Study Area are regularly mowed and disked and are currently comprised of non-native annual grasses and weedy forbs. The primary crop appears to have been cultivated wheat (*Triticum aestivum*). In addition to the disked wheat, this vegetation community is dominated by tumbleweed (*Amaranthus albus*), Russian thistle (*Salsola tragus*), Johnsongrass (*Sorghum halepense*), common purslane (*Portulaca oleracea*), silver sheath knotweed (*Polygonum argyrocoleon*), alkali mallow (*Malvella leprosa*), filaree (*Erodium botrys*), Bermuda grass (*Cynodon dactylon*), prickly lettuce (*Lactuca scariola*), and winter vetch (*Vicia villosa*). Undisturbed areas along Pedrick Road and Highway 80 frontages include perennial ryegrass (*Festuca perennis*), filaree, wintervetch, yellow starthistle (*Centaurea solstitialis*), slender wild oat (*Avena barbata*), and (*Galium aparine*).

3.2 Hydrology

Surface water in the Study Area is driven by natural stormwater runoff and seasonal irrigation. The Study Area is flat without evidence of concentrated flows. A partially blocked roadside ditch along Pedrick Road connects to a drop inlet that drains to a detention basin associated with the industrial property north of the Study Area. The Study Area is located in the Lower American River Watershed (HUC 1802011) (USGS 1978).

3.3 National Wetlands Inventory

The National Wetlands Inventory (NWI) produces and distributes maps and other geospatial data to the public on American wetland and deepwater habitats, as well as monitor changes in these habitats through time as directed by the Emergency Wetlands Resources Act of 1986 (Public Law 99-645). The NWI is primarily compiled through the use of trained image analysts to identify and classify wetlands and deepwater habitats from aerial imagery and is not a substitute for a full field analysis. The NWI has not mapped any wetlands or other aquatic resources within the Study Area (USFWS 2023).

3.4 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2023a), three soil mapping units occur within the Study Area (**Figure 2**): (BrA) Brentwood clay loam, 0 to 2 percent slopes, (Ca) Capay silty clay loam, 0 percent slopes, MLRA 17, and (Yo) 0 to 4 percent slopes, MLRA 17. None of the mapped soil map units are listed in the "Hydric Soils of the United States" (NRCS 2023b) or contain recognized hydric inclusions.

3.5 Driving Directions

To access the Study Area from Sacramento, drive west on Interstate 80 to the Pedrick Road exit. Drive south on Pedrick Road over the freeway and the Study Area is located on the west side of the road.

4.0 RESULTS

No aquatic resources were delineated within the Study Area. Three data points were collected in a shallow roadside ditch along Pedrick Road. This ditch was designed to convey runoff from Pedrick Road into a storm drain inlet in the northeast corner of the Study Area. The ditch was partially blocked to the south and does not appear to convey regular flow as the surrounding land is relatively flat. This concrete drain inlet in the northeast corner of the Study Area receives runoff from a more substantial off-site ditch segment north of the Study Area, and directs these flows into a storm water detention basin. Data points DP-1, DP-2, and DP-3 were collected in the on-site portion of this roadside ditch. The on-site ditch has no OHWM, but is dominated by perennial ryegrass, a non-native annual grass that is classified as a facultative wetland plant species. Therefore, it does meet the wetland dominance test and is classified as containing hydrophytic vegetation. However, the loamy clay soils lacked hydric soil indicators, and are not included on the hydric soils list. The ditch does not meet the tree parameters for wetland status. With the exception of biotic crust at data point DP-1 the ditch lacks hydrology indicators. No evidence of ponding or saturation within the ditch was observed in a review of aerial imagery (Google Earth 2023).

An additional data point (DP-4) was collected in the fallow field based off saturation visible on the July 2021 aerial image (Google Earth 2023). This data point was dominated by weedy upland forbs and lacked hydric soils or wetland hydrology. The saturation visible on the aerial imagery appears to have been irrigation

overflow from the field to the south and not consistent enough support the development of a wetland in this location.

Data sheets are included in **Attachment A**, maps of the Study Area are included as **Figure 3** and **Attachment B**, and a list of the plant species observed in the Study Area with their wetland indicator status is included in **Attachment C**. Representative site photographs are available in **Attachment D**.

5.0 CONCLUSION

No wetlands or other waters were mapped within the Study Area. The shallow roadside ditch does not meet the hydrophytic vegetation, hydric soil, and wetland hydrology criteria outlined by the USACE.

The applicant is requesting an Approved Jurisdictional Determination for the site due to the lack of aquatic resources within the Study Area. The *Request for Aquatic Resource Verification or Jurisdictional Determination Form* is included in **Attachment E**.

6.0 REFERENCES

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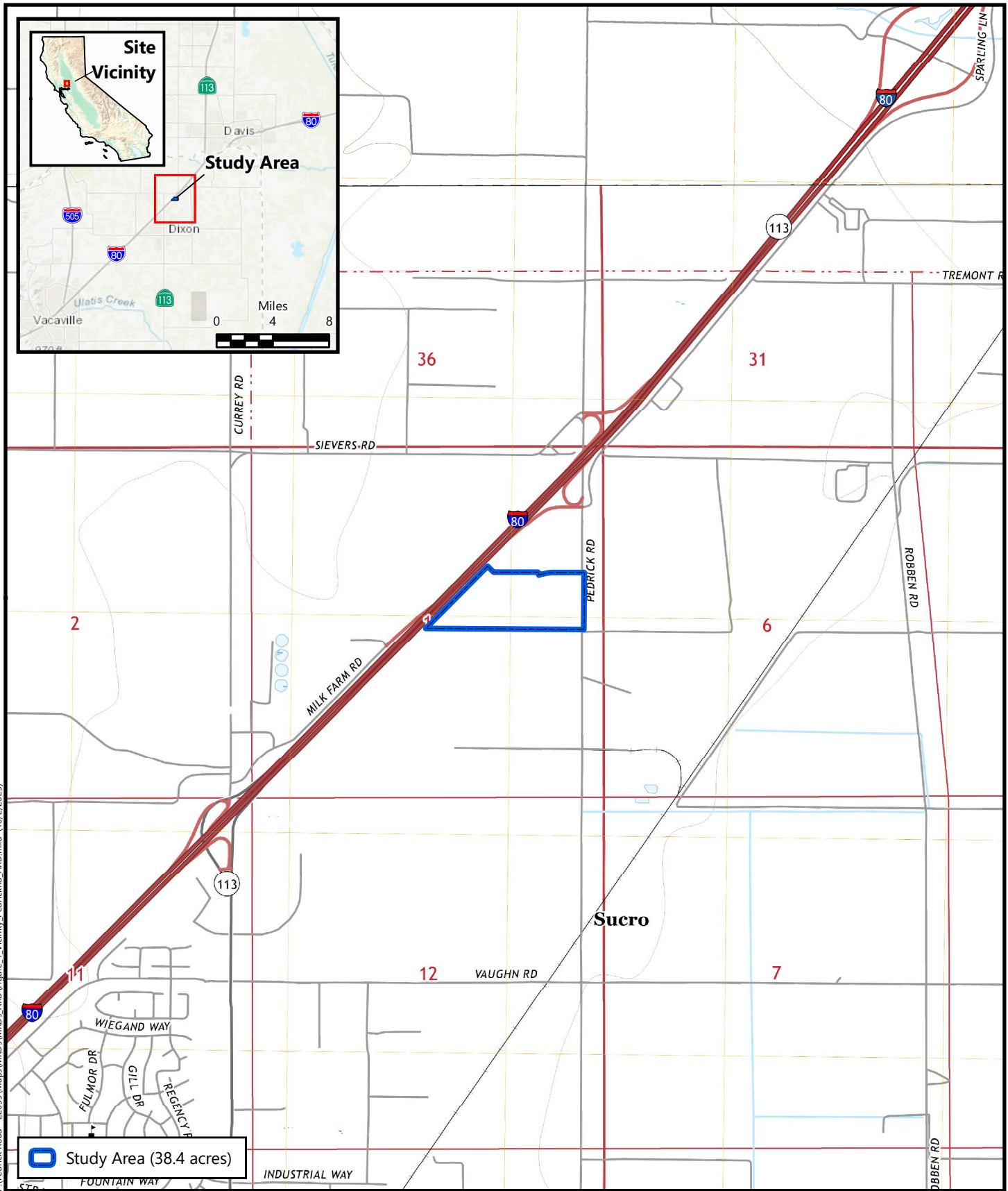
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- U.S. Fish and Wildlife Service. October 2023, National Wetland Inventory (NWI) wetlands mapper, <https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>, accessed October 2023. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

Figures


Figure 1. Vicinity Map

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources



P:\Pedrick Road - 220551\Maps\MXD\S\MXD\S_ARD\Figure_1_Vicinity_PedrickRd_ARD.mxd (10/2/2023)

 Study Area (38.4 acres)

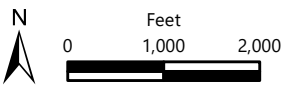


Figure 1
Site and Vicinity


Source: United States Geologic Survey, 2021
 "Dixon, California" 7.5-Minute Topographic Quadrangle
 Section 1, Township 7 North, Range 1 East, MDBM
 Latitude (NAD83): 38.482844°, Longitude (NAD83): -121.807263°

Pedrick Road
 Dixon, Solano County, California






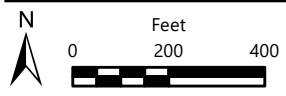


P:\Pedrick Road - 220551\Mapa\MXDs\MXDs_AR\Figure_2_NRCS_PedrickRd_AR\mxd (10/2/2023)

 Study Area (38.4 acres)

Soil Map Units

-  BrA - Brentwood clay loam, 0 to 2 percent slopes
-  Ca - Capay silty clay loam, 0 percent slopes, MLRA 17
-  Yo - Yolo loam, 0 to 4 percent slopes, MLRA 17



Soil Survey Source: *USDA, Soil Conservation Service. Soil Survey Geographic (SSURGO) database for Solano County, California*
 Boundary Source: Morton and Pitalo
 Aerial Source: Maxar, 27 September 2022


Figure 2
Natural Resources Conservation Service Soils

Pedrick Road
Dixon, Solano County, California





P:\Pedrick Road - 220551\Mapa\MXD\MXDs\ARD\Figure_3_AquaticResources_PedrickRd_ARD.mxd (10/11/2023)

 Study Area (38.4 acres)
Aquatic Resources (0.000 acre)
 No Aquatic Resources in Study Area

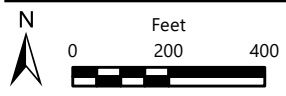


Figure 3
Aquatic Resources

Boundary Source: Morton and Pitalo
Aerial Source: Maxar, 27 September 2022

Pedrick Road
Dixon, Solano County, California



Attachments

Attachment A. Arid West Wetland Determination Data Forms

Attachment B. Aquatic Resources Delineation

Attachment C. Plant Species Observed within the Study Area

Attachment D. Representative Site Photographs

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Attachment A

Arid West Wetland Determination Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
 See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Pedrick Road City/County: Dixon, Solano County Sampling Date: 9/2/2022
 Applicant/Owner: Buzz Oats Construction State: _____ Sampling Point: DP-1
 Investigator(s): Bonnie Peterson Section, Township, Range: Section 10, Township 11 North, Range 6 East.
 Landform (hillside, terrace, etc.): Valley floor Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR C Lat: _____ Long: _____ Datum: NAD 83
 Soil Map Unit Name: Yolo loam, 0 to 4 percent slopes, MLRA 17 NWI classification: None

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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Point selected in a roadside ditch adjacent to a rip rap drop inlet.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Herb Stratum</u> (Plot size: <u>1 meter sq.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Epilobium brachycarpum</i></u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
2. <u><i>Lactuca serriola</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3. <u><i>Solanum vulgaris</i></u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4. <u><i>Festuca perennis/ Lolium perenne</i></u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
90 =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>10</u>		
Remarks:				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species <u>0</u>	<u>0</u> x 1 =	<u>0</u>
FACW species <u>0</u>	<u>0</u> x 2 =	<u>0</u>
FAC species <u>75</u>	<u>75</u> x 3 =	<u>225</u>
FACU species <u>5</u>	<u>5</u> x 4 =	<u>20</u>
UPL species <u>10</u>	<u>10</u> x 5 =	<u>50</u>
Column Totals: <u>90</u> (A)		<u>295</u> (B)
Prevalence Index = B/A =		<u>3.28</u>

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤3.0¹

_____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: DP-1

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		
0-4								Rock
4-18	2.5y 3/2	100					Loamy/Clayey	

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"/> 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"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input checked="" type="checkbox"/> ? Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

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

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

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<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 on 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 <u>X</u> No _____
Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____	
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____	
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches): _____	
(includes capillary fringe)				

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
 See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Pedrick Road City/County: Dixon, Solano County Sampling Date: 9/2/2022
 Applicant/Owner: Buzz Oats Construction State: _____ Sampling Point: DP-2
 Investigator(s): Bonnie Peterson Section, Township, Range: Section 10, Township 11 North, Range 6 East.
 Landform (hillside, terrace, etc.): Valley floor Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR C Lat: _____ Long: _____ Datum: NAD 83
 Soil Map Unit Name: Capay silty clay loam, 0 percent slopes, MLRA 17 NWI classification: None

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: Point selected in a roadside ditch.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
=Total Cover					
Sapling/Shrub Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
=Total Cover					
Herb Stratum	(Plot size: <u>1 meter sq.</u>)				
1.	<u>Brassica nigra</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
2.	<u>Lactuca serriola</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
3.	<u>Centaurea solstitialis</u>	<u>10</u>	<u>No</u>	<u>UPL</u>	
4.	<u>Festuca perennis/ Lolium perenne</u>	<u>50</u>	<u>Yes</u>	<u>FAC</u>	
5.	<u>Convolvulus arvensis</u>	<u>2</u>	<u>No</u>	<u>UPL</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
72 =Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
=Total Cover					
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u>0</u>			
Remarks:					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>50</u>	x 3 = <u>150</u>
FACU species	<u>5</u>	x 4 = <u>20</u>
UPL species	<u>17</u>	x 5 = <u>85</u>
Column Totals:	<u>72</u> (A)	<u>255</u> (B)
Prevalence Index = B/A = <u>3.54</u>		

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤3.0¹

_____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: DP-2

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		
0-18	2.5y 3/1	100				Loamy/Clayey	

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"/> 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"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---------------------------------------------------------------------------------	---------------------------------------------------

Remarks:

HYDROLOGY

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

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
 See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Pedrick Road City/County: Dixon, Solano County Sampling Date: 9/2/2022
 Applicant/Owner: Buzz Oats Construction State: _____ Sampling Point: DP-3
 Investigator(s): Bonnie Peterson Section, Township, Range: Section 10, Township 11 North, Range 6 East.
 Landform (hillside, terrace, etc.): Valley floor Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): LRR C Lat: _____ Long: _____ Datum: NAD 83
 Soil Map Unit Name: Capay silty clay loam, 0 percent slopes, MLRA 17 NWI classification: None

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: Point selected in a roadside ditch.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
=Total Cover					
Sapling/Shrub Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
=Total Cover					
Herb Stratum	(Plot size: <u>1 meter sq.</u>)				
1.	<u>Festuca perennis/ Lolium perenne</u>	<u>100</u>	<u>Yes</u>	<u>FAC</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
=Total Cover					
Woody Vine Stratum	(Plot size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
=Total Cover					
% Bare Ground in Herb Stratum <u>30</u>		% Cover of Biotic Crust <u>0</u>			
Remarks:					

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species <u>0</u>	<u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	<u>0</u>	x 2 = <u>0</u>
FAC species <u>100</u>	<u>100</u>	x 3 = <u>300</u>
FACU species <u>0</u>	<u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	<u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>100</u>	<u>300</u> (B)
Prevalence Index = B/A = <u>3.00</u>		

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
 _____ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: DP-3

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	2.5y 3/1	100					Loamy/Clayey	

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"/> 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"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
---------------------------------------------------------------------------------	---------------------------------------------------

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)	
<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 on 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 <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------

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

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
 See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024
 Requirement Control Symbol EXEMPT:
 (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Pedrick Road City/County: Dixon, Solano County Sampling Date: 9/2/2022
 Applicant/Owner: Buzz Oats Construction State: _____ Sampling Point: DP-4
 Investigator(s): Bonnie Peterson Section, Township, Range: Section 10, Township 11 North, Range 6 East.
 Landform (hillside, terrace, etc.): Valley floor Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): LRR C Lat: _____ Long: _____ Datum: NAD 83
 Soil Map Unit Name: Capay silty clay loam, 0 percent slopes, MLRA 17 NWI classification: None

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: Point selected in a signature on ariel imagery.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				=Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				=Total Cover
<u>Herb Stratum</u> (Plot size: <u>1 meter sq.</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Amaranthus albus</u>	40	Yes	FACU	
2. <u>Portulaca oleracea</u>	5	No	FAC	
3. <u>Malvela leprosa</u>	5	No	FACU	
4. <u>Sorghum halepense</u>	35	Yes	FACU	
5. <u>Convolvulus arvensis</u>	10	No	UPL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				95 =Total Cover
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
				=Total Cover
% Bare Ground in Herb Stratum <u>30</u>		% Cover of Biotic Crust <u>0</u>		
Remarks:				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

	Total % Cover of:	Multiply by:
OBL species	<u>0</u>	x 1 = <u>0</u>
FACW species	<u>0</u>	x 2 = <u>0</u>
FAC species	<u>5</u>	x 3 = <u>15</u>
FACU species	<u>80</u>	x 4 = <u>320</u>
UPL species	<u>10</u>	x 5 = <u>50</u>
Column Totals:	<u>95</u> (A)	<u>385</u> (B)
Prevalence Index = B/A = <u>4.05</u>		

Hydrophytic Vegetation Indicators:
 _____ Dominance Test is >50%
 _____ Prevalence Index is ≤3.0¹
 _____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 _____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

SOIL

Sampling Point: DP-4

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		
0-16	10yr 3/2	100					Loamy/Clayey	

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"/> 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"/> Iron-Manganese Masses (F12) (LRR D)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)			
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (F21)			
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (F22)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					

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

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
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Remarks:
Soils are regularly disked.

HYDROLOGY

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

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

Remarks:
Irrigation water present on ariel imagery

Attachment B

Aquatic Resources Delineation

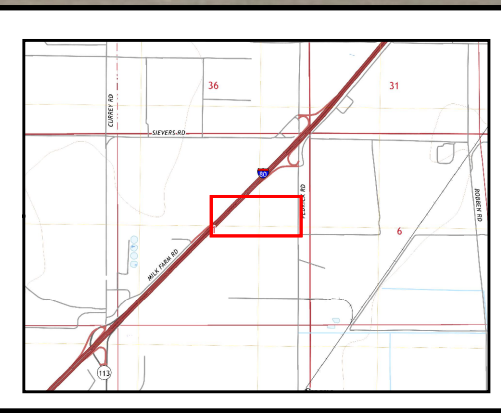


P:\Pedrick Road - 2025\Map\WMS\WMS_Aerial\USACE_AND_PedrickRD.mxd, 10/17/2023, 14:01

N
 0 50 100 200
 Feet
Map Scale: 1 inch = 100 feet (at 26"x14")
Coordinate System
 NAD 1983 StatePlane California II FIPS 0402 Feet
Sources
Aerial : Maxar, 27 September 2022
Boundary : Morton and Pitalo

Delineation Performed by: B. Peterson
Map Prepared by: J.Swager
Date Map Prepared: 10/11/2023
 Made in accordance with the
*Updated Map and Drawing Standards for the
 South Pacific Division Regulatory Program,*
 as amended on February 10, 2016

Prepared For:
Buzz Oates Construction, Inc.
 555 Capitol Mall Suite 900
 Sacramento, CA 95814



- Study Area (38.4 acres)
- Reference Coordinate (NAD83)
- Data Point

Aquatic Resources (0.000 acre)
 No Aquatic Resources in Study Area

Aquatic Resources Delineation
Pedrick Road
 Dixon, Solano County, California

8421 Auburn Boulevard, Suite 248
 Citrus Heights, California 95610
 (916) 822.3230 | www.madroneeco.com

Attachment C

Plant Species Observed within the Study Area

**Plant Species Observed within the Study Area
15 April and 2 September 2022**

Species Name	Common Name	Wetland Indicator Status
<i>Carduus pycnocephalus subsp. pycnocephalus</i>	Italian thistle	UPL
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Pseudognaphalium luteoalbum</i>	Pearly everlasting	-
<i>Senecio vulgaris</i>	Common groundsel	FACU
<i>Amsinckia intermedia</i>	Common fiddleneck	-
<i>Brassica nigra</i>	Black mustard	UPL
<i>Acemison americanus var. americanus</i>	Spanish lotus	UPL
<i>Lupinus bicolor</i>	Miniature lupine	UPL
<i>Trifolium hirtum</i>	Rose clover	UPL
<i>Vicia villosa</i>	Hairy vetch, winter vetch	-
<i>Erodium botrys</i>	Filaree	FACU
<i>Geranium dissectum</i>	Cut leaf geranium	UPL
<i>Juncus bufonius var. bufonius</i>	Toad rush	-
<i>Avena barbata</i>	Slender wild oat	UPL
<i>Avena sativa</i>	Cultivated oat	-
<i>Bromus hordeaceus</i>	Soft chess	FACU
<i>Elymus caput-medusae</i>	Medusa head	UPL
<i>Festuca microstachys</i>	Pacific fescue	-
<i>Festuca perennis</i>	Rye grass	FAC
<i>Hordeum marinum subsp. gussoneanum</i>	Mediterranean barley	FAC
<i>Hordeum murinum subsp. glaucum</i>	Smooth barley	-
<i>Poa annua</i>	Annual blue grass	FAC
<i>Galium aparine</i>	Goose grass	FACU
<i>Amaranthus albus</i>	Tumbleweed	FACU
<i>Centaurea solstitialis</i>	Yellow star-thistle	UPL
<i>Centromadia fitchii</i>	Fitch's spikeweed	-
<i>Raphanus raphanistrum</i>	Jointed charlock	-
<i>Convolvulus arvensis</i>	Bindweed	UPL
<i>Juglans regia</i>	English walnut	UPL
<i>Malvella leprosa</i>	Alkali-mallow	FACU
<i>Epilobium brachycarpum</i>	Panicled willow-herb	UPL
<i>Cynodon dactylon</i>	Bermuda grass	FACU
<i>Sorghum halepense</i>	Johnson grass	FACU
<i>Triticum aestivum</i>	Cultivated wheat	-
<i>Polygonum argyrocoleon</i>	Persian knotweed	-
<i>Polygonum aviculare</i>	Knotweed, knotgrass	-
<i>Rumex crispus</i>	Curly dock	FAC
<i>Portulaca oleracea</i>	Purslane	FAC
<i>Carduus pycnocephalus subsp. pycnocephalus</i>	Italian thistle	UPL

Species Name	Common Name	Wetland Indicator
		Status
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Pseudognaphalium luteoalbum</i>	Pearly everlasting	-
<i>Senecio vulgaris</i>	Common groundsel	FACU
<i>Amsinckia intermedia</i>	Common fiddleneck	-
<i>Brassica nigra</i>	Black mustard	UPL
<i>Acmispon americanus var. americanus</i>	Spanish lotus	UPL
<i>Lupinus bicolor</i>	Miniature lupine	UPL
<i>Trifolium hirtum</i>	Rose clover	UPL
<i>Vicia villosa</i>	Hairy vetch, winter vetch	-
<i>Erodium botrys</i>	Filaree	FACU
<i>Geranium dissectum</i>	Cut leaf geranium	UPL
<i>Juncus bufonius var. bufonius</i>	Toad rush	-

Attachment D

Representative Site Photographs



Photo DP-1 – Photo taken 2 September 2022.



Photo DP-2 – Photo taken 2 September 2022.



Photo DP-3 – Photo taken 2 September 2022.



Photo DP-4 – Photo taken 2 September 2022.



Pedrick Road frontage including shallow roadside ditch– Photo taken 2 September 2022.



Typical upland agricultural field– Photo taken 2 September 2022.

Attachment E

Request for Aquatic Resource Verification or Jurisdictional Determination Form

REQUEST FOR AQUATIC RESOURCES DELINEATION VERIFICATION
OR JURISDICTIONAL DETERMINATION

A separate jurisdictional determination (JD) is not necessary to process a permit. An Approved Jurisdictional Determination (AJD) is required to definitively determine the extent of waters of the U.S. and is generally used to disclaim jurisdiction over aquatic resources that are not waters of the U.S., in cases where the review area contains no aquatic resources, and in cases when the recipient wishes to challenge the water of the U.S. determination on appeal. Either an Aquatic Resources Delineation Verification or a Preliminary Jurisdictional Determination (PJD) may be used when the recipient wishes to assume that aquatic resources are waters of the U.S. for the purposes of permitting. In some circumstances an AJD may require more information, a greater level of effort, and more time to produce. If you are unsure which product to request, please speak with your project manager or call the Sacramento District's general information line at (916) 557-5250.

I am requesting the product indicated below from the U.S. Army Corps of Engineers, Sacramento District, for the review area located at:

Street Address: _____ City: _____ County: _____ State: _____ Zip: _____ Section: _____ Township: _____ Range: _____ Latitude (decimal degrees): _____ Longitude (decimal degrees): _____ The approximate size of the review area for the JD is _____ acres. (Please attach location map)	
Choose one: <input type="checkbox"/> I own the review area <input type="checkbox"/> I hold an easement or development rights over the review area <input type="checkbox"/> I lease the review area <input type="checkbox"/> I plan to purchase the review area <input type="checkbox"/> I am an agent/consultant acting on behalf of the requestor Other: _____	Choose one product: <input type="checkbox"/> I am requesting an Aquatic Resources Delineation Verification <input type="checkbox"/> I am requesting an Approved JD <input type="checkbox"/> I am requesting a Preliminary JD <input type="checkbox"/> I am requesting additional information to inform my decision about which product to request
Reason for request: (check all that apply) <input type="checkbox"/> I need information concerning aquatic resources within the review area for planning purposes. <input type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which would be designed to avoid all aquatic resources. <input type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which would be designed to avoid those aquatic resources determined to be waters of the U.S. <input type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which may require authorization from the Corps; this request is accompanied by my permit application. <input type="checkbox"/> I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district's list of navigable waters under Section 10 of the Rivers and Harbors Act of 1899 and/or is subject to the ebb and flow of the tide. <input type="checkbox"/> My lender, insurer, investors, local unit of government, etc. has indicated that an aquatic resources delineation verification is inadequate and is requiring a jurisdictional determination. <input type="checkbox"/> I intend to contest jurisdiction over particular aquatic resources and request the Corps confirm that these aquatic resources are or are not waters of the U.S. <input type="checkbox"/> I believe that the review area may be comprised entirely of dry land. Other: _____	
Attached Information: Maps depicting the general location and aquatic resources within the review area consistent with Map and Drawing Standards for the South Pacific Division Regulatory Program (Public Notice February 2016, http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/) Aquatic Resources Delineation Report, if available, consistent with the Sacramento District's Minimum Standards for Acceptance (Public Notice January 2016, http://1.usa.gov/1V68lYa)	
By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the review area. Your signature shall be an affirmation that you possess the requisite property rights for this request on the subject property.	
*Signature: _____ Date: _____ Name: _____ Company name: _____ Address: _____ Telephone: _____ Email: _____	

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.