
APPENDIX I

Willowgrove Project

Aquatic Resources Delineation Report

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
CFR	Code of Federal Regulations
CWA	Clean Water Act
FAC	Facultative plants
FACU	Facultative upland plants
FACW	Facultative wetland plants
HELIX	HELIX Environmental Planning, Inc.
HUC	Hydrologic Unit Code
NRCS	Natural Resource Conservation Service
OBL	Obligate wetland plants
OHWM	ordinary high-water mark
RWQCB	Regional Water Quality Control Board
SWRCB	State Water Resources Control Board
UPL	Upland plants
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQC	Water Quality Certification

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EXECUTIVE SUMMARY

This report presents the results of an aquatic resources delineation within the ±237.56-acre Willowgrove Project (formerly Shriners Residential Development project) (Study Area) and five additional off-site areas that total 4.23 acres were also surveyed for aquatic resources. The Study Area is located on East Covell Road just west of Mace Boulevard, north of Interstate 80 (I-80), in the City of Davis, Yolo County, California, within assessor's parcel number 071-130-007. The potential presence of aquatic resources was assessed following the technical guidelines provided by the U.S. Army Corps of Engineers (USACE) in the *Corps of Engineers Wetlands Delineation Manual* (USACE Manual), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0; Supplement), and the *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (Final Version). These technical guidelines present wetland and ordinary high water mark (OHWM) indicators, delineation guidance, and other information that pertain to the Arid West Region.

A total of A total of 2.566 acres and 2,650 linear feet of aquatic resources has been delineated in the Study Area with a total of 2.450 acres and 2,455 linear feet of aquatic resources on-site with an additional 0.116 acre and 195 linear feet of aquatic resources in off-site areas consisting of an intermittent drainage, as no other aquatic resources were observed within the Study Area. Desktop review showed integration between this intermittent drainage and a series of other drainages that are tributary to the Sacramento River. The federal jurisdictional status of all mapped aquatic resources within the Study Area is subject to agency verification. The intermittent drainage would likely be considered a water of the State and a water of the U.S.

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1.0 INTRODUCTION

On behalf of Davis Eastside, LLC. (Applicant), HELIX Environmental Planning, Inc. (HELIX) has prepared this aquatic resources delineation report in support of the Willowgrove Project (project) to delineate potential jurisdictional wetlands and other waters of the U.S. and State on a ±237.56-acre Study Area located in the City of Davis, Yolo County, California. Five additional off-site areas that total 4.23 acres were also surveyed for aquatic resources. The purpose of this delineation was to identify aquatic resources in the Study Area that would potentially qualify as waters of the U.S. and/or waters of the State. Waters of the U.S. are subject to regulatory jurisdiction by both the U.S. Army Corps of Engineers (USACE) and the applicable Regional Water Quality Control Board (RWQCB). Waters of the State are subject to the jurisdiction of the RWQCB. If present, impacts to aquatic resources would potentially require obtaining permits and authorizations from one or both agencies. The results presented in this document are preliminary and subject to verification by the USACE.

1.1 PROJECT LOCATION

The ±237.56-acre Study Area and five off-site areas that total 4.23 acres are located on East Covell Road just west of Mace Boulevard, north of Interstate 80 (I-80), in the City of Davis, Yolo County, California (Appendix A, Figure 1, *Site and Vicinity Map*). The site is situated in Sections 1 and 2 of Township 8 North and Range 2 East and is depicted on the U.S. Geological Survey (USGS) *Davis, CA* 7.5-minute quadrangle map (Appendix A, Figures 1 and 2, *USGS Topographic Map*). The approximate center of the Study Area is at latitude 38.5695584 and longitude -121.7081286, NAD 83, and is located at an elevation of approximately 33 feet above mean sea level (AMSL).

1.2 DRIVING DIRECTIONS

From downtown Sacramento, California, travel onto Interstate 80 (I-80) West. Continue on I-80 West and take exit 75 to merge onto Mace Boulevard. Travel north on Mace Boulevard, and after 0.25 mile, Mace Boulevard becomes East Covell Boulevard. Continue on East Covell Boulevard, after approximately 0.1 mile, turn right onto a dirt road across the street from Harper Junior High School. The Study Area is accessible from this dirt road.

1.3 AGENT CONTACT INFORMATION

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1.4 REGULATORY SETTING

1.4.1 Waters of the U.S.

On May 25, 2023, the U.S. Supreme Court issued a decision in the case of *Sackett v. Environmental Protection Agency* (Supreme Court of the United States 2023), which will ultimately influence how federal waters are defined. The May 25, 2023, Supreme Court decision in *Sackett v. Environmental Protection Agency* determined that “the CWA extends to only those ‘wetlands with a continuous surface connection to bodies that are “waters of the U.S.” in their own right,’ so that they are ‘indistinguishable’ from those waters.” The U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE) after review issued a final rule to replace the 2023 rule that amends the “Revised Definition of “Waters of the U.S.” to conform key aspects of the regulatory text to the U.S. Supreme Court’s May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*.

Unless considered an exempt activity under Section 404(f) of the Federal Clean Water Act (CWA), any person, firm, or agency planning to alter or work in “waters of the U.S.,” including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Activities exempted under Section 404(f) are not exempted within navigable waters under Section 10.

The Clean Water Act (33 United States Code (USC) 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there were no practicable alternative that would have less adverse impacts.

1.4.2 Waters of the State

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Clean Water Act. Although the Clean Water Act is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and

Regional Water Boards are the authorities that certify that the issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within Waters of the United States, and now also implements the State's wetland protection and hydromodification regulation program under the Porter-Cologne Water Quality Control Act.

On May 28, 2020, the SWRCB implemented the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California (SWRCB 2019). The Procedures consist of four major elements:

- I. A wetland definition;
- II. A framework for determining if a feature that meets the wetland definition is a water of the state;
- III. Wetland delineation procedures; and,
- IV. Procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

Under the Procedures and the State Water Code (Water Code §13050(e)), "waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." "Waters of the State" includes all "waters of the U.S."

More specifically, a wetland is defined as: *"An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation."* The wetland definition encompasses the full range of wetland types commonly recognized in California, including some features not protected under federal law, and reflects current scientific understanding of the formation and functioning of wetlands (SWRCB 2019).

Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to waters of the State, which includes waters of the U.S. and non-federal waters of the State, requires filing of an application under the Procedures.

2.0 ENVIRONMENTAL SETTING

2.1 EXISTING CONDITIONS

The Study Area is in an agricultural setting and is currently used to cultivate various crops, such as hay. Aerial imagery of the Study Area indicates that hayfields and row crops have been cultivated on the site for at least the past 68 years. Dirt access roads and upland ditches occur throughout the Study Area along the perimeters of the fields, and aerial imagery also indicates the ditches are created, moved, and filled as crops are rotated and cultivated (Google Earth® 2025; NETR 2025). The Study Area contains an unnamed drainage that supports wetlands and flows seasonally from the west to the northeast through the Study Area. This feature is a tributary to Willow Pass Slough and ultimately the Sacramento River. A

topographic map of the Study Area is included in Appendix A, Figure 2, and an aerial image of the Study Area is included in Appendix A, Figure 3, *Aerial Map*.

2.2 FIELD CONDITIONS

Fieldwork for this aquatic resources delineation was conducted on April 16, 2024 and January 28, 2025. The weather during the site visit was dry, with clear skies and cool, with temperatures ranging between 58 and 72 degrees Fahrenheit in 2024, with only slightly cooler conditions in January of 2025. Evidence of recent tilling for the purpose of planting row crops was observed in the irrigated hayfield.

2.3 INTERSTATE OR FOREIGN COMMERCE CONNECTION

The aquatic resources in the Study Area are not utilized for foreign or interstate commerce.

3.0 METHODS

3.1 DATA GATHERING

The following sources were used in the preparation of this jurisdictional delineation:

- Aerial photography taken March 18, 2022, downloaded from Esri®,
- U.S. Fish and Wildlife Service’s (USFWS) National Wetland Inventory online wetland mapper (USFWS 2025),
- Natural Resources Conservation Service (NRCS) web soil survey (NRCS 2024a),
- Corps of Engineers Wetlands Delineation Manual (USACE 1987),
- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0; USACE 2008),
- National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams: Final Version (USACE 2025);
- Rapid OHWM Field Identification Data Sheet (USACE 2021),
- Field Indicators of Hydric Soils in the United States (Version 9.0) (NRCS 2024) and,
- USACE 2022 National Wetland Plant List for the Arid West Region (USACE 2023).

3.2 BOUNDARIES OF THE DELINEATION

The delineation area includes the estimated ±237.56-acre Study Area and 4.23 acres of off-site areas (Appendix B, *Aquatic Resources Delineation Map*). Refer to this map for the limits of the delineation.

3.3 DETERMINATION PROCEDURES

3.3.1 Delineation Methods

Criteria for determining the presence of wetlands or other waters subject to USACE jurisdiction are presented in the USACE *Wetlands Delineation Manual* (USACE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0; USACE 2008), and the *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (Final Version; USACE 2025).

Key criteria for determining the presence of wetlands subject to USACE jurisdiction (USACE 1987) are:

- a) The presence of inundated or saturated soil conditions resulting from permanent or periodic inundation by ground water or surface water.
- b) A prevalence of vegetation typically adapted for life in saturated soil conditions (hydrophytic vegetation).

To assess whether wetlands are present, USACE requires that data be recorded on three environmental parameters: hydrology, soil, and vegetation. Positive wetland indicators for all three parameters are generally required for the USACE to assert jurisdiction.

HELIX biologists Michael Scaffidi and Christine Gonzalez conducted the fieldwork for the jurisdictional delineation on April 16, 2024. Additional off-site locations were mapped on January 28, 2025, by HELIX Senior Scientist Patrick Martin and HELIX biologist Brandt Muller. The jurisdictional delineation was conducted in accordance with the USACE *Wetlands Delineation Manual* (USACE 1987), the *Regional Supplement to the USACE Wetland Delineation Manual: Arid West* (Version 2.0; USACE 2008), and the *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (Final Version; USACE 2025). Vegetation, soils, and hydrologic characteristics were visually assessed by conducting meandering transects along undisturbed areas that were not impacted by farming practices through the Study Area to obtain 100 percent visual coverage.

Plant species identifiable at the time of the survey were recorded in the field and are included in Appendix C of this report. Plants observed within the Study Area were categorized with the wetland indicator status for each species, as shown in Table 1, *Wetland Indicator Status Rating*.

Table 1
WETLAND INDICATOR STATUS RATING

Indicator Status (abbreviation)	Characterization
Obligate (OBL)	Almost always occur in wetlands
Facultative Wetland (FACW)	Usually occur in wetlands, but may occur in non-wetlands
Facultative (FAC)	Occur in wetlands and non-wetlands
Facultative Upland (FACU)	Usually occur in non-wetlands, but may occur in wetlands
Upland (UPL)	Almost never occur in wetlands

The Munsell Color chart (Gretag Macbeth 2000) was used to determine moist soil colors and, thus, hydric soils, if present. Data was taken at 13 representative sample points throughout the Study Area to classify the site's soils, vegetation, and hydrologic characteristics.

Geographic coordinates of aquatic resources boundaries and locations of sample points were recorded in the field with an electronic tablet wirelessly connected to a Juniper Geode® (Global Navigation Satellite System [GNSS]) receiver unit with sub-meter accuracy. These data were exported into ArcGIS Pro 3.1.2® and used to produce the Aquatic Resources Delineation Map included as Appendix B. Wetland determination data forms are provided in Appendix D. Representative photographs of the Study Area, and the associated sampling locations, are included as Appendix E.

3.3.2 Plant/Habitat Nomenclature

Habitat nomenclature is generally derived from *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Plant nomenclature is taken from *The Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al. 2012).

4.0 RESULTS

4.1 VEGETATION COMMUNITIES/HABITAT TYPES

Two upland biological communities occur within the Study Area: irrigated hayfield and urban. A total of seven upland biological communities occur in off-site areas of the Study Area, which include annual grassland, perennial grassland, deciduous orchard, irrigated hayfield, ruderal, valley foothill riparian, and urban.

4.1.1 Irrigated Hayfield

Irrigated hayfield makes up the majority of the Study Area and is common on the surrounding parcels. Vegetation in this habitat type is varied and does not conform to normal habitat stages. Vegetation can either be annual or perennial, vary according to location in the state, and germinate at various times of the year. Crop rotation is typically used to conserve soil nutrients and maintain productivity. These crops are often established on fertile soils that historically supported an abundance of wildlife. Many species of wildlife have adapted to croplands but are often controlled by fencing, trapping, and poisoning to prevent excessive crop losses. The availability of irrigation water during dry months benefits many wildlife species as a source of water (Mayer and Laudenslayer 1988). Approximately 230.60 acres of irrigated hayfield occur in the Study Area, and 0.042 acre occurs in the off-site areas.

Plant species observed along the perimeters of the fields are ruderal and invasive and include species such as black mustard (*Brassica nigra*) (--), prickly lettuce (*Lactuca serriola*) (FACU), and slim oats (*Avena barbata*) (--). The irrigated hayfield is also rotated with truck crops, which consist of tomatoes, sunflowers, and alfalfa.

Two earthen-lined ditches occur within the irrigated hayfield. The ditches are constructed features used to deliver water from a water delivery system. One ditch is located entirely within the hayfield, while the other drains the hayfield. Both features are transient and have been observed in different locations on aerial photos, depending on the agricultural needs of the crop. Aerial imagery indicates the ditches are managed, moved, and filled as crops are rotated and cultivated (Google Earth® 2024). These ditches are

overgrown with dense, ruderal vegetation such as broad-leaf pepperweed (*Lepidium latifolium*) (FAC), annual fireweed (*Epilobium brachycarpum*) (FAC), Italian ryegrass (*Festuca perennis*) (FAC), and black mustard (*Brassica nigra*) (--). Several groundwater pumps were observed within portions of the ditches and hayfield that were tied into the ditches.

4.1.2 Urban

Urban habitat is often comprised of built structures, landscaped areas, and/or maintained surfaces such as roads, bike paths, tree groves, or parking lots. Vegetation that does occur within this habitat type is often ornamental, rather than invasive or noxious weeds, such as in ruderal habitat types. Urban habitats typically retain a soil substrate, but the vegetation communities are either lacking or are comprised of mostly ruderal plant species if not landscaped. A total of 4.51 acres of urban habitat occurs within the Study Area, with an additional 1.69 acres occurring in the off-site area and is made up of paved roads, walking paths, landscaped areas, and tree groves or tree windrows located along the western boundary of the hayfield.

4.1.3 Valley Foothill Riparian

A total of 0.02 acre of valley foothill riparian habitat was mapped in an off-site area of the Study Area, which is generally situated along the bank of an intermittent drainage. Vegetation in the valley foothill riparian habitat generally consisted of polished willow (*Salix laevigata*) (FACW), with no understory vegetation. Valley foothill riparian is in a topographically low area within the Study Area and is situated between ruderal areas and the intermittent drainage, which supports seasonal marsh vegetation.

4.1.4 Annual Grassland

A total of 1.15 acres of annual grassland was mapped within the Study Area in off-site areas. This annual grassland community occurs in an area associated with a walking path and revegetation areas in the Wildhorse buffer. Annual grassland in the Study Area is dominated by invasive species which include foxtail barley (*Hordeum murinum*), yellow star-thistle (*Centaurea solstitialis*) (--), ripgut brome (*Bromus diandrus*) (--), and rattail sixweeks grass (*Festuca myuros*) (FACU).

4.1.5 Perennial Grassland

A total of 0.15 acre of perennial grassland was mapped within the Study Area in off-site areas. This perennial grassland community occurs in an area located in an area associated with a walking path and revegetation areas. Perennial grassland in the Study Area is dominated by a mix of invasive species consistent with annual grassland described above in Section 4.1.4 but is dominated by perennial grass species that includes California fescue (*Festuca californica*) (FACU), deer grass (*Muhlenbergia rigens*) (FAC), and beardless wild rye (*Elymus triticoides*) (FAC). Perennial grassland appears to be part of a restoration project along the walking path.

4.1.6 Deciduous Orchard

A total of 0.17 acre of deciduous orchard is present in the Study Area, located in an off-site area on the northeastern portion of the Study Area. This acreage comprises a small portion of the Study Area that produces a nut crop. Deciduous orchards are a single-species tree-dominated habitat. Depending on the tree type and pruning methods, trees are usually low and bushy with an open understory to facilitate

harvest. Crowns usually touch and are usually in a linear pattern. Spacing between trees is uniform depending on the desired spread of mature trees. Characteristic species in the Study Area include walnuts (*Juglans regia*) (--).

4.1.7 Ruderal

A total of 0.52 acre of ruderal habitat is present in the Study Area in off-site areas. Ruderal habitat is land that retains a soil substrate but is subject to a recent or ongoing disturbance that prevents the formation of natural vegetation communities. Vegetation in disturbed areas is dominated by naturalized and/or invasive non-native species and ruderal native annual species. The species composition is determined by local colonization potential or past introductions. Ruderal habitat in the Study Area is dominated by a variety of non-native grasses, including oats, Italian ryegrass, and soft brome and other non-native annual grasses and forbs. However, these areas appear to be frequently disturbed and represent an upland habitat located primarily along a walking path.

4.2 CLIMATE

The climate of Yolo County is Mediterranean, characterized by wet, cool winters and dry, hot summers. The nearest weather station to the Study Area with sufficient data to generate 30-year average precipitation values is located at the Davis 2 WSW EXP Farm Station, located near the University of California, Davis, approximately four miles southwest of the Study Area. The average daily maximum and minimum temperatures are 106° and 51° Fahrenheit (F) in July and 57° and 49° F in January. The mean annual precipitation is 18.28 inches over the past 25 years, with over 100 percent occurring as rain from October to May. This weather station received approximately 16.07 inches of rainfall from October 1, 2023, to March 26, 2024, which represents approximately 88 percent of the average annual rainfall for the area (NRCS 2025). Before the site visit on January 28, 2025, the Study Area received a total of 11.57 inches from October 2024 through the end of January 2025, or 11 percent above average (NRCS 2025). Rainfall in January 2025 was exceptionally dry, with only 5.8 percent of normal rainfall for the month of January measured at the weather station before the January 28, 2025, site visit. However, the overall rainfall for the 2024/2025 rain season was above average.

4.3 SOILS

Eight soil map units are mapped within the Study Area: Marvin silty clay loam, Merritt complex, saline alkali, Reiff gravelly loam, Sycamore silt loam, drained, 0 percent slopes MLRA 17, Sycamore silty clay loam, drained, 0 percent slopes, MLRA 17, Sycamore complex, drained, Tyndall very fine sandy loam, drained, and Yolo silt loam, 0 to 2 percent slopes, MLRA 17 (Appendix A, Figure 4, *Soils Map*). The general characteristics and properties associated with these soils are described below (NRCS 2024b).

- **Marvin silty clay loam:** These soils are derived from mixed silty and clayey alluvium. A typical soil profile consists of silty clay loam and silty clay. They are somewhat poorly drained, have a high runoff class, and no frequency of flooding or ponding. The minor components of this soil type are rated hydric.
- **Merritt complex, saline-alkali:** These soils are derived from mixed alluvium from sedimentary rock. A typical soil profile is silty clay loam, silt loam, very fine sandy loam, and stratified loamy fine sand to silt loam. They are poorly drained, have a medium runoff class, a rare frequency of flooding, and no ponding. This soil type and minor components are rated as hydric soil.

- **Reiff gravelly loam:** These soils are formed in mixed coarse-loamy alluvium. A typical soil profile is gravelly loam and gravelly sandy loam. They are well drained, and have a very low runoff class, no frequency of flooding, and no frequency of ponding. This soil type is not rated as hydric.
- **Sycamore silt loam, drained, 0 percent slopes, MLRA 17:** These soils are derived from silty alluvium derived from igneous, metamorphic, and sedimentary rock. A typical soil profile is silty loam. They are somewhat poorly drained, and have a low runoff class, rare frequency of flooding, and no frequency of ponding. The minor components of this soil type are rated hydric.
- **Sycamore silty clay loam, drained, 0 percent slopes, MLRA 17:** These soils are derived from silty alluvium derived from igneous, metamorphic, and sedimentary rock. A typical soil profile is silty clay loam. They are somewhat poorly drained, and have a medium runoff class, rare frequency of flooding, and no frequency of ponding. The minor components of this soil type are rated hydric.
- **Sycamore complex, drained:** These soils are derived from mixed alluvium derived from sedimentary rock. A typical soil profile is silty clay loam and silty clay. They are somewhat poorly drained, have a medium runoff class, and no frequency of flooding or ponding. This soil type and minor components are rated as hydric soil.
- **Tyndall very fine sandy loam, drained:** These soils are derived from mixed alluvium derived from sedimentary rock. A typical soil profile is very fine sandy loam. They are somewhat poorly drained, have a very low runoff class, and no frequency of flooding or ponding. The minor components of this soil type are rated hydric.
- **Yolo silt loam, 0 to 2 percent slopes, MLRA 17:** These soils are derived from alluvium derived from igneous, metamorphic, and sedimentary rock. A typical soil profile is silty loam. They are well drained, have a low runoff class, and no frequency of flooding or ponding. The minor components of this soil type are rated hydric.

4.4 HYDROLOGY

The Study Area is in the Lower Sacramento watershed (USGS Hydrologic Unit Code [HUC8] 18020163). Two upland agricultural ditches occur in the Study Area, along the northeastern and western perimeters. These constructed ditches are used to distribute water via a pump system to the center and south of the Study Area and drain the water back into the riverine feature to the north. The riverine feature in the northern portion of the Study Area is an intermittent drainage that flows from the west into the Study Area before continuing northeast into Willow Slough Bypass. The Willow Slough Bypass flows east and north into the Prospect Slough and Tule Canal. The Prospect Slough and Tule Canal drain directly into the Sacramento River, a traditional navigable water.

4.5 USFWS NATIONAL WETLANDS INVENTORY

The USFWS National Wetlands Inventory (NWI) online database was queried to identify whether any wetlands or other waters of the U.S. mapped by the USFWS are present in the Study Area. The query identified one riverine feature mapped within the Study Area (Appendix A, Figure 5, *National Wetland Inventory Map*). This feature is consistent with the current intermittent drainage mapped within the Study Area. No other aquatic resources were mapped within a one-mile radius by the NWI.

5.0 AQUATIC RESOURCES

As depicted in Table 2, *Aquatic Resources in the Study Area*, (located at the end of this section), a total of 2.566 acres and 2,650 linear feet of aquatic resources have been delineated in the Study Area and off-site areas, which consist of one intermittent drainage (Appendix B).

Intermittent Drainage

A total of 2.450 acres and 2,455 linear feet of intermittent drainage were mapped within the Study Area. A total of 0.116 acre and 195 linear feet of intermittent drainage occur in an off-site area west of the Study Area, but represent the same intermittent drainage. The feature passes through the Study Area from the west to the northeast and drains to Willow Pass Slough. The incised channel of this drainage was vegetated by hydrophytic vegetation that consisted of tall flatsedge (*Cyperus eragrostis*) (FACW), Mexican rush (*Juncus mexicanus*) (FACW), Fremont cottonwood (*Populus fremontii*), polished willow (*Salix laevigata*) (FACW), boxelder (*Acer negundo*) (FACW), and California bulrush (*Schoenoplectus californicus*) (FACW). Upland vegetation dominated the banks of the feature and consisted of cheeseweed mallow (*Malva parviflora*) (--), milk thistle (*Silybum marianum*) (--), and soft brome (*Bromus hordeaceus*) (FACU). The drainage supports water seasonally, as evidenced by aerial imagery (Google Earth® 2025). This was confirmed during the site visit on October 5, 2023, when the drainage was mostly dry, and on April 16, 2024, when some sections of the drainage were dry but the majority was inundated. On January 28, 2025, the intermittent drainage in the off-site area was dry. The streambed substrate was observed to be mostly a mixture of clay and loam.

The OHWM of the intermittent drainage was placed below the bank break in the bank slope near the outer edge of the low flow channel. Evidence of shelving was present below the OHWM, which encloses the low flow channel. Two delineation sample points were taken in association with the OHWM. One sample point was taken adjacent to the edge of the low-flow channel where standing water was present. Another sample was taken near the bank break in the bank slope where the OHWM was assigned and in the off-site area (Appendix D).

Table 2
AQUATIC RESOURCES IN THE STUDY AREA

Feature	Latitude/Longitude	Cowardin Classification ¹	Area (acres)	Area (sq. ft.)	Length (feet)
Other Waters					
On-Site					
ID-01	38.572672 / -121.712146	R2UBFx	2.450	106,591	2,455
Off-Site					
ID-01	38.572672 / -121.712146	R2UBFx	0.116	5,052.96	195
Total Aquatic Resources			2.566	111,775	2,650

¹ Cowardin Codes for Wetlands: System (R = riverine) – Subsystem (2 = lower perennial) – Class (UB – unconsolidated bottom) – Water Regime (F = semi-permanently flooded) – Special Modifier (x = excavated)

5.1 POTENTIAL WATERS OF THE U.S.

A total of 2.566 acres and 2,650 linear feet of aquatic resources has been delineated in the Study Area with a total of 2.450 acres and 2,455 linear feet of aquatic resources on-site with an additional

0.116 acre and 195 linear feet of aquatic resources in off-site areas, which consists entirely of an intermittent drainage that is expected to qualify as a water of the U.S. The federal jurisdictional status of all mapped aquatic resources within the Study Area is subject to agency verification.

5.2 POTENTIAL WATERS OF THE STATE

Waters of the State include natural and artificial wetlands and streams. This includes wetlands created by modification of surface waters of the State. A total of 2.566 acres and 2,650 linear feet of aquatic resources has been delineated in the Study Area with a total of 2.450 acres and 2,455 linear feet of aquatic resources on-site with an additional 0.116 acre and 195 linear feet of aquatic resources in off-site areas, which consists entirely of an intermittent drainage that is expected to qualify as a water of the State.

6.0 SUMMARY

HELIX conducted an aquatic resources delineation of the 237.56-acre Study Area and five additional off-site areas that total 4.23 acres for the Willowgrove Project, located in Davis, California, within the assessor's parcel number 071-130-007. A total of 2.566 acres and 2,650 linear feet of aquatic resources has been delineated in the Study Area with a total of 2.450 acres and 2,455 linear feet of aquatic resources on-site with an additional 0.116 acre and 195 linear feet of aquatic resources in off-site areas consisting of an intermittent drainage, as no other aquatic resources were observed within the Study Area. The intermittent drainage would likely be considered a water of the U.S. and State. The results presented in this document are preliminary and subject to verification by the resource agencies.

7.0 REFERENCES

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, Editors. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley.
- Google Earth. 2025. Google Earth. Available at: <https://earth.google.com/web>.
- Gretag Macbeth. 2000. Munsell Soil Color Charts. New Windsor, NY.
- Mayer, K.E. and W.F. Laudenslayer. 1988. A Guide to Wildlife Habitats of California. State of California, Resources Agency, Department of Fish and Game, Sacramento, CA 166pp.
- NETR Online. 2025. Aerial Imagery 1957-2022. Accessed April 2025.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture (NRCS). 2025. Climate Data and Summary Reports from AgACIS. Available at: <http://agacis.rcc-acis.org/?fips=06067>.
- 2024a. Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov/>.
- 2024b. Field Indicators of Hydric Soils in the United States, Version 9.0.
- State Water Resources Control Board (SWRCB). 2019. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State [For inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California]*. Adopted April 2, 2019, and subsequently revised April 6, 2021. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf.
- U.S. Army Corps of Engineers (USACE). 2025. National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams: Final Version. Gabrielle C. L. David, Ken M. Fritz, Tracie-Lynn Nadeau, Brian J. Topping, Aaron O. Allen, Patrick H. Trier, Steven L. Kichefski, L. Allan James, Ellen Wohl, and Daniel Hamill. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.
2021. Rapid OHWM Field Identification Data Sheet. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. K.E. Curtis, and R.W. Lichvar, eds., ERDC/CRREL TR-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.
2023. 2022 National Wetland Plant List, version 3.6. U.S. Army Engineer Research and Development Center, Vicksburg, MS. <http://wetland-plants.usace.army.mil/>
2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). J.S. Wakeley, R.W. Lichvar, and C.V. Noble, Editors. Technical Report prepared for the U.S. Army Engineer Research and Development Center, Vicksburg, MS.

U.S. Army Corps of Engineers (USACE) (cont.)

1987. Wetlands Research Program Technical Report Y-87-1 Corps of Engineers Wetland Delineation Manual. January 1987.

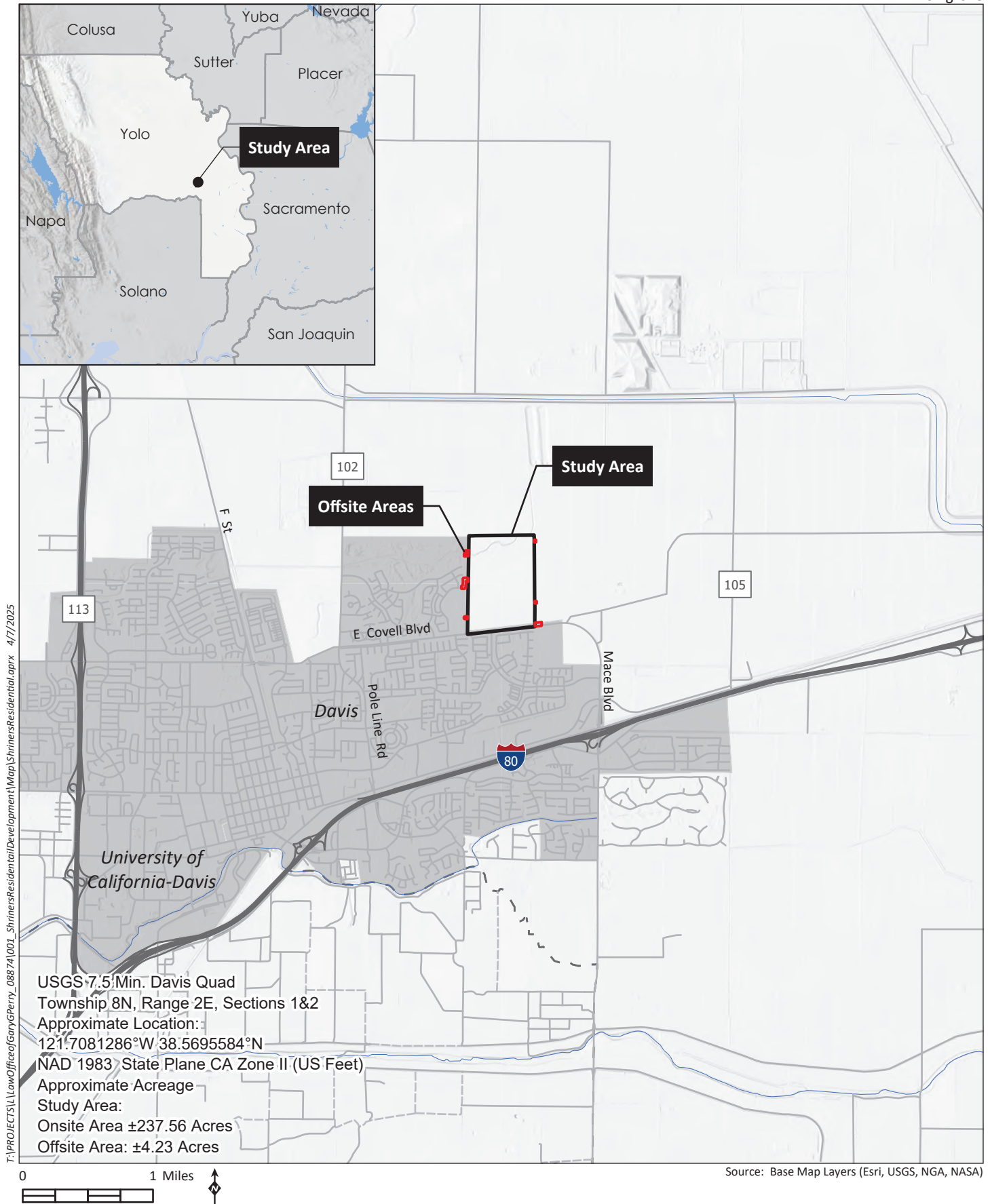
U.S. Fish and Wildlife Service (USFWS). 2025. National Wetlands Inventory. Available at:

<http://www.fws.gov/wetlands/Data/mapper.html>.

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Appendix A

Figures



- Onsite Area - 237.56 Acres
- Offsite Area - 4.23 Acres

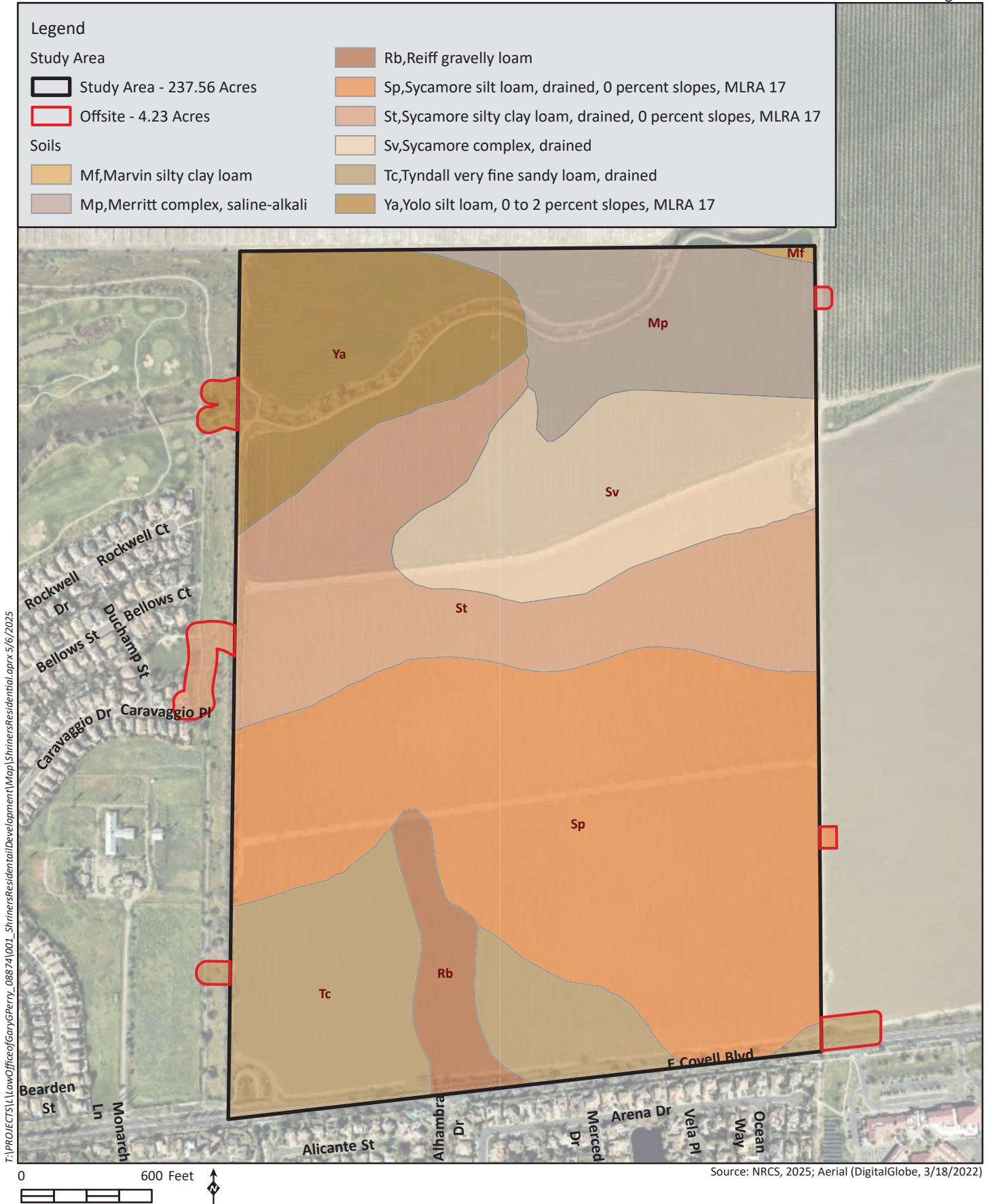


USGS 7.5 Min. Davis Quad
Township 8N, Range 2E, Sections 1&2
Approximate Location: 121.7081286°W 38.5695584°N



Source: USGS, The National Map, 2024







Appendix B

Aquatic Resources Delineation Map

—— Contour (5ft)

Appendix B

- The boundaries and jurisdictional status of all waters shown on this map are preliminary and subject to verification by the U.S. Army Corps of Engineers.
- Delineation conducted M. Scaffidi and C. Gonzalez on 4/16/2024, and P. Martin and B. Muller on 1/28/2025.
- Aquatic resources were mapped by HELIX using a Juniper Geode submeter GPS unit.
- This delineation utilizes the USACE 1987 three-parameter methodology and Arid West Supplement to delineate jurisdictional waters of the U.S.
- The Hydrologic Unit Code for this site is 18020163.
- Topographic contour interval is 5 feet.
- Coordinate System: State Plane Zone II.
- Projection: Lambert Conic Conformable.
- Datum: North American Datum 1983.

Appendix C

Plant Species Observed in the Study Area

Family	Species Name	Common Name	Rating*
Native			
Apocynaceae	<i>Asclepias fascicularis</i>	Narrow leaf milkweed	FAC
Asteraceae	<i>Artemisia douglasiana</i>	California mugwort	FAC
	<i>Baccharis pilularis</i>	coyote brush	--
	<i>Xanthium strumarium</i>	Rough cocklebur	FAC
Boraginaceae	<i>Heliotropium curassavicum</i>	Salt heliotrope	FACU
Cyperaceae	<i>Cyperus eragrostis</i>	tall flatsedge	FACW
	<i>Schoenoplectus californicus</i>	California bulrush	OBL
Cleomaceae	<i>Cleomella arborea</i>	bladderpod	--
Ericaceae	<i>Arctostaphylos manzanita</i>	Common manzanita	--
Fabaceae	<i>Cercis occidentalis</i>	Western redbud	--
Fagaceae	<i>Quercus agrifolia</i>	coast live oak	--
	<i>Quercus lobata</i>	valley oak	FACU
Frankeniaceae	<i>Frankenia salina</i>	Alkali heath	FACW
Juglandaceae	<i>Juglans hindsii</i>	Northern California black walnut	FAC
Juncaceae	<i>Juncus effusus</i>	Common bog rush	FACW
	<i>Juncus mexicanus</i>	Mexican rush	FACW
Malvaceae	<i>Malvella leprosa</i>	Alkali mallow	FACU
Onagraceae	<i>Epilobium brachycarpum</i>	annual fireweed	FAC
Platanaceae	<i>Platanus racemosa</i>	California sycamore	FAC
Poaceae	<i>Elymus (=Leymus) triticoides</i>	Creeping wildrye	FAC
	<i>Festuca californica</i>	California fescue	FACU
	<i>Muhlenbergia rigens</i>	deergrass	FAC
	<i>Stipa pulchra</i>	Purple needlegrass	--
Rhamnaceae	<i>Frangula californica</i>	California coffeeberry	--
Rosaceae	<i>Heteromeles arbutifolia</i>	Toyon	--
Rubiaceae	<i>Gallium aparine</i>	common bedstraw	FACU
Salicaceae	<i>Populus fremontii</i>	Fremont cottonwood	FACW
	<i>Salix laevigata</i>	polished willow	FACW
Sapindaceae	<i>Acer negundo</i>	boxelder	FACW
	<i>Aesculus californica</i>	California buckeye	--
Non-native			
Amaranthaceae	<i>Amaranthus albus</i>	Pigweed amaranth	FACU
Apiaceae	<i>Conium maculatum</i>	Poison hemlock	FACW
Anacardiaceae	<i>Schinus terebinthifolius</i>	Brazilian pepper tree	FAC
Apiaceae	<i>Daucus carota</i>	Wild carrot	UPL
	<i>Foeniculum vulgare</i>	sweet fennel	--
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	--
	<i>Centaurea solstitialis</i>	yellow-star thistle	--
	<i>Cirsium vulgare</i>	Bull thistle	FACU
	<i>Dittrichia graveolens</i>	Stinkwort	--
	<i>Helminthotheca echinoides</i>	Bristly ox-tongue	FAC
	<i>Silybum marianum</i>	milk thistle	--
	<i>Lactuca serriola</i>	prickly lettuce	FACU
Chenopodiaceae	<i>Atriplex prostrata</i>	Fat-hen	FACW
Brassicaceae	<i>Brassica nigra</i>	black mustard	--
	<i>Lepidium latifolium</i>	perennial pepperweed	FAC
	<i>Sisymbrium altissimum</i>	Tumble mustard	FACU
Caryophyllaceae	<i>Spergularia rubra</i>	Purple sand spurry	FAC

Family	Species Name	Common Name	Rating*
Convolvulaceae	<i>Convolvulus arvensis</i>	Field Bindweed	--
Euphorbiaceae	<i>Triadica sebifera</i>	Chinese tallowtree	FAC
Chenopodiaceae	<i>Atriplex prostrata</i>	Fat-hen	FACW
Juglandaceae	<i>Juglans regia</i>	English walnut	--
Malvaceae	<i>Malva parviflora</i>	cheeseweed mallow	--
Oleaceae	<i>Olea europaea</i>	Olive tree	--
Poaceae	<i>Avena barbata</i>	slender oats	--
	<i>Bromus diandrus</i>	common ripgut grass	--
	<i>Bromus hordeaceus</i>	soft brome	FACU
	<i>Cynodon dactylon</i>	Bermuda Grass	FACU
	<i>Elymus caput-medusae</i>	Medusa head	--
	<i>Festuca myuros</i>	rattail sixweeks grass	FACU
	<i>Festuca perennis</i>	Italian ryegrass	FAC
	<i>Hordeum marinum</i> ssp. <i>gussoneanum</i>	Mediterranean barley	FAC
	<i>Hordeum murinum</i>	Foxtail barley	FACU
	<i>Phalaris minor</i>	Mediterranean canarygrass	--
	<i>Sorghum halepense</i>	Johnsongrass	FACU
Polygonaceae	<i>Polygonum aviculare</i>	Prostrate knotweed	FAC
	<i>Rumex crispus</i>	curly dock	FAC

Scientific and common names from:

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, D.H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University of California Press, Berkeley or

U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory, *Arid West 2022 Regional Wetland Plant List* (USACE 2023)

* FAC – facultative, FACU – facultative upland, FACW – facultative wetland, OBL – obligate, -- Not Listed, considered to be upland.

Appendix D

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 1
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572397 Long: -121.703474 Datum: NAD 83
 Soil Map Unit Name: Sycamore Complex, drained NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present? Yes _____ No ☒	
Wetland Hydrology Present? Yes _____ No ☒	
Remarks: Feature appears to be an upland ditch associated with nearby agriculture.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>30</u> x 3 = <u>90</u> FACU species _____ x 4 = _____ UPL species <u>25</u> x 5 = <u>125</u> Column Totals: <u>55</u> (A) <u>215</u> (B) Prevalence Index = B/A = <u>3.9</u>
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
Herb Stratum (Plot size: <u>1 x 1 meter</u>)				
1. <u>Lepidium latifolium</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Foeniculum vulgare</u>	<u>25</u>	<u>Y</u>	<u>--</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>45</u> % Cover of Biotic Crust _____				

Remarks:
Thatch and dead debris from previous season present. No hydrophytic vegetation observed.

SOIL

Sampling Point: 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	10YR 3/2	100						
4-12	10YR 3/2	97	10YR 5/6	3	C	M	CL	

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.)

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (**LRR C**)
☐ 1 cm Muck (A9) (**LRR D**)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)
☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

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 ☒

Remarks:

Some faint redox in lower profile of the sample

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1) (**Nonriverine**)
☐ Sediment Deposits (B2) (**Nonriverine**)
☐ Drift Deposits (B3) (**Nonriverine**)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)

☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres along Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

☐ Water Marks (B1) (**Riverine**)
☐ Sediment Deposits (B2) (**Riverine**)
☐ Drift Deposits (B3) (**Riverine**)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No ☒ Depth (inches): _____

Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

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

Remarks:

Soil is moist but not saturated. No evidence of wetland hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 2
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.662372 Long: -121.429892 Datum: NAD 83
 Soil Map Unit Name: Sycamore silty clay loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 _____	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present? Yes ☒ No _____	
Wetland Hydrology Present? Yes _____ No ☒	
Remarks: Feature is a created ditch associated with nearby agriculture. The data point represents the only location with Festuca perennis and hydric soils. This location represents a potential low point or area where ponding may occur within the ditch.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Festuca perennis</u> 75 Y FAC 2. <u>Rumex crispus</u> 2 N FAC 3. <u>Lepidium latifolium</u> 5 N FAC 4. <u>Epilobium brachycarpum</u> 3 N FAC 5. _____ 6. _____ 7. _____ 8. _____ _____ 85 = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ☒ No _____
--	--

Remarks:

Location is dominated by Festuca perennis

SOIL

Sampling Point: 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	Loc ²		
0-4	10YR 3/1	100						
4-12	10YR 3/1	92	10YR 4/6	8	C	M	CL	

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.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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 ☐

Remarks:

Worms present in the top 5 inches. Evidence of hydric soil observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

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

Remarks:

Soil is moist but not saturated. No hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 3
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.570478 Long: -121.712653 Datum: NAD 83
 Soil Map Unit Name: Sycamore silty clay loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland?	Yes _____ No ☒
Hydric Soil Present?	Yes _____ No ☒		
Wetland Hydrology Present?	Yes _____ No ☒		
Remarks: The sampling point is located on a mound adjacent to the upland ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Festuca myuros</u> <u>5</u> <u>N</u> <u>FACU</u> 2. <u>Bromus diandrus</u> <u>2</u> <u>N</u> <u>--</u> 3. <u>Lepidium latifolium</u> <u>10</u> <u>Y</u> <u>FAC</u> 4. <u>Brassica nigra</u> <u>2</u> <u>N</u> <u>--</u> 5. <u>Silybum marianum</u> <u>30</u> <u>Y</u> <u>--</u> 6. _____ 7. _____ 8. _____ _____ = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>51</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>10</u> x 3 = <u>30</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>34</u> x 5 = <u>170</u> Column Totals: <u>49</u> (A) <u>220</u> (B) Prevalence Index = B/A = <u>4.67</u> Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
Remarks: Dead debris from previous growing season present. Lots of weeds around.	

SOIL

Sampling Point: 3

[illegible]

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 4
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572401 Long: -121.712626 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present? Yes _____ No ☒	
Wetland Hydrology Present? Yes _____ No ☒	
Remarks: Data point is located in the drainage ditch to the north of sample points 2 and 3.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>20</u> x 3 = <u>60</u> FACU species _____ x 4 = _____ UPL species <u>35</u> x 5 = <u>175</u> Column Totals: <u>55</u> (A) <u>235</u> (B) Prevalence Index = B/A = <u>4.17</u>
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
Herb Stratum (Plot size: <u>1 x 1 meter</u>)				
1. <u>Epilobium branchycarpum</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Malva parviflora</u>	<u>25</u>	<u>Y</u>	<u>--</u>	
3. <u>Brassica nigra</u>	<u>8</u>	<u>N</u>	<u>--</u>	
4. <u>Centaurea solstitialis</u>	<u>2</u>	<u>N</u>	<u>--</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>45</u>	% Cover of Biotic Crust _____			

Remarks:
Hydrophytic vegetation not present

SOIL

Sampling Point: 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		
0-6	10YR 3/2	100						
6-10	10YR 3/3	100						

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.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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 ☒

Remarks:

No hydric soil indicators observed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No ☒ Depth (inches): _____

Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

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

Remarks:

No wetland soil indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 5
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.567717 Long: -121.712757 Datum: NAD 83
 Soil Map Unit Name: Sycamore silt loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 _____	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present? Yes _____ No ☒	
Wetland Hydrology Present? Yes _____ No ☒	
Remarks: Data point is located within a created agricultural upland ditch.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Brassica nigra</u> 5 N -- 2. <u>Lepidium latifolium</u> 3 N FAC 3. <u>Epilobium branchycarpum</u> 30 Y FAC 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>62</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ☒ No _____
--	---

Remarks:
 Dominance of E. branchycarpum means hydrophytic vegetation is present.

SOIL

Sampling Point: 5

[illegible]

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 6
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572677 Long: -121.712143 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: R2UBFx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: OHWM location within the intermittent drainage at the boundary of the low flow channel.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Juncus mexicanus</u> <u>70</u> <u>Y</u> <u>FACW</u> 2. <u>Lepidium latifolium</u> <u>8</u> <u>N</u> <u>FAC</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>22</u> % Cover of Biotic Crust _____				

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 ☐

Remarks:
Area dominated by Juncus mexicanus.

SOIL

Sampling Point: _____

[illegible]

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 4/16/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 7
 Investigator(s): M. Scaffidi, C. Gonzalez Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.662372 Long: -121.429892 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: R2UBFx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: Sample location is located in a floodplain terrace within the constructed channel. The point occurs at the OHWM on the shelf below the break in the bank slope.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>35</u> x 2 = <u>70</u> FAC species <u>15</u> x 3 = <u>45</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>20</u> x 5 = <u>100</u> Column Totals: <u>100</u> (A) <u>335</u> (B) Prevalence Index = B/A = <u>3.35</u>
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Juncus mexicanus</u> <u>35</u> <u>Y</u> <u>FACW</u> 2. <u>Malva parviflora</u> <u>2</u> <u>N</u> <u>--</u> 3. <u>Silybum marianum</u> <u>10</u> <u>N</u> <u>--</u> 4. <u>Bromus hordeaceus</u> <u>25</u> <u>Y</u> <u>FACU</u> 5. <u>Gallium aparine</u> <u>5</u> <u>N</u> <u>FACU</u> 6. <u>Geranium dissectum</u> <u>8</u> <u>N</u> <u>--</u> 7. <u>Festuca perennis</u> <u>15</u> <u>N</u> <u>FAC</u> 8. _____ _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks: No evidence of hydrophytic vegetation.				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic Vegetation Present? Yes ☐ No ☒

SOIL

Sampling Point: 7

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): 6 (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No presence of wetland hydrology indicators nearby.		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 5/23/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 8
 Investigator(s): M. Scaffidi Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.567855 Long: -121.708055 Datum: NAD 83
 Soil Map Unit Name: Sycamore silt loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present?	Yes _____ No ☒	
Wetland Hydrology Present?	Yes _____ No ☒	
Remarks: Data point is located within a created agricultural access road. There is a water pump nearby for irrigating tomatoes and sunflower row crops.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Malva parviflora</u> 5 Y -- 2. <u>Erigeron bonariensis</u> 1 N FACU 3. <u>Convolvulus arvensis</u> 7 Y -- 4. <u>Chenopodium album</u> 1 N FACU 5. _____ 6. _____ 7. _____ 8. _____ 14 = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>86</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
--	--

Remarks:
Recent tilling of soil occurred nearby. Presence of sunflower to the south and tomato row crops to the north. No hydrophytic vegetation present.

SOIL

Sampling Point: 8

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	10YR 4/2	100						
4-10	10YR 4/2	95	10YR 5/8	5	C	M	Cl Lo	

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.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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 ☒

Remarks:

Area is located 30 feet from water pump for irrigation. High Chroma value of redox concentrations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No ☒ Depth (inches): _____

Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

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

Remarks:

No evidence of wetland hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 5/23/2024
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 9
 Investigator(s): M. Scaffidi Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.570962 Long: -121.707997 Datum: NAD 83
 Soil Map Unit Name: Sycamore silt loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present?	Yes _____ No ☒	
Wetland Hydrology Present?	Yes _____ No ☒	
Remarks: Data point is located within a created agricultural access road.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Anthemis cotula</u> 30 Y FACU 2. <u>Sonchus oleraceus</u> 7 N UPL 3. <u>Convolvulus arvensis</u> 7 N -- 4. <u>Lolium perenne</u> 2 N -- 5. <u>Lactuca serriola</u> 2 N FACU 6. <u>Triticum aestivum</u> 25 Y -- 7. <u>Matricaria discoidea</u> 1 N FACU 8. _____ 74 = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>26</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
--	--

Remarks:

Recent tilling of soil occurred nearby. Presence of tomato row crops to the south and wheat to the north. No hydrophytic vegetation present.

SOIL

Sampling Point: 9

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		
0-6	10YR 5/2	100						
4-10	10YR 4/2	100						

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.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)

- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
- ☐ 2 cm Muck (A10) (**LRR B**)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Other (Explain in Remarks)

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 ☒

Remarks:

Soil recently tilled nearby. No evidence of hydric soil present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)

- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No ☒ Depth (inches): _____

Saturation Present? Yes _____ No ☒ Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

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

Remarks:

No evidence of wetland hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Yolo County Sampling Date: 1/28/2025
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 10
 Investigator(s): P. Martin, B. Muller Section, Township, Range: Sections 1 & 2, 8N, 2E in Davis, CA Quad
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.568789 Long: -121.712838 Datum: NAD 83
 Soil Map Unit Name: Sycamore silt loam, drained, 0 percent slopes, MLRA 17 NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present?	Yes _____ No ☒	
Wetland Hydrology Present?	Yes ☒ No _____	
Remarks: Sampling point represents a low lying area in an upland ditch. The ditch originates south of the sampling point in uplands in the Study Area and drains to a culvert, which likely directs any water to the intermittent drainage.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover Herb Stratum (Plot size: <u>1 x 1 meter</u>) 1. <u>Elymus triticoides</u> 30 Y FAC 2. <u>Carduus pycnocephalus</u> 15 Y -- 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ 45 = Total Cover Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>55</u> % Cover of Biotic Crust _____	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) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____ Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No ☒
Remarks: Juglans hindsii overstory, however trees are not rooted in upland ditch.	

SOIL

Sampling Point: 10

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

[illegible]

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:

- | | | |
|--|---|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) | ☐ 1 cm Muck (A9) (LRR C) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) | ☐ 2 cm Muck (A10) (LRR B) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) | ☐ Reduced Vertic (F18) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) | ☐ Red Parent Material (TF2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) | ☐ Other (Explain in Remarks) |
| ☐ 1 cm Muck (A9) (LRR D) | ☐ Redox Dark Surface (F6) | |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) | |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) | |
| ☐ Sandy Mucky Mineral (S1) | ☐ Vernal Pools (F9) | |
| ☐ Sandy Gleyed Matrix (S4) | | |
- ³Indicators of hydrophytic vegetation wetland hydrology must be present unless disturbed or problematic

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

Restrictive Layer (if present):

Type: N/A

Depth (inches): --

Hydric Soil Present? Yes _____ No ☒

Remarks:

Low concentrations of prominent redoximorphic features are present. Does not meet hydric soil criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|---|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) | ☐ Water Marks (B1) (Riverine) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) | ☐ Sediment Deposits (B2) (Riverine) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) | ☒ Drift Deposits (B3) (Riverine) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) | ☒ Drainage Patterns (B10) |
| ☐ Sediment Deposits (B2) (Nonriverine) | ☐ Oxidized Rhizospheres along Living Roots (C3) | ☐ Dry-Season Water Table (C2) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) | ☐ Crayfish Burrows (C8) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) | ☐ Saturation Visible on Aerial Imagery (C9) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) | ☐ Shallow Aquitard (D3) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) | ☐ FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____

Water Table Present? Yes _____ No ☒ Depth (inches): _____

Saturation Present? Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Upland ditch meets secondary indicator for drainage pattern with drift deposits (riverine) also present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Davis/Yolo County Sampling Date: 1/28/2025
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 11
 Investigator(s): P. Martin, B. Muller Section, Township, Range: Sections 1 & 2, T8N, R2E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572861 Long: -121.713131 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: Bank of drainage above ordinary high water mark that supports hydrophytes. This sampling point represents uplands and lacks hydric soil and wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>)				
1. _____				
2. _____				
3. _____				
4. _____				Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>1 x 1 meter</u>)				
1. <u>Juncus effusus</u>	<u>60</u>	<u>Y</u>	<u>FACW</u>	
2. _____				
3. _____				Hydrophytic Vegetation Present? Yes ☒ No ☐
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				Hydrophytic Vegetation Present? Yes ☒ No ☐
<u>45</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>40</u> % Cover of Biotic Crust _____				

Remarks:
Consists entirely of hydrophytes.

SOIL

Sampling Point: 11

[illegible]

HYDROLOGY

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

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Davis/Yolo County Sampling Date: 1/28/2025
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 12
 Investigator(s): P. Martin, B. Muller Section, Township, Range: Sections 1 & 2, T8N, R2E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572831 Long: -121.713125 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐	Is the Sampled Area within a Wetland?	Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐		
Wetland Hydrology Present?	Yes ☒ No ☐		
Remarks: Intermittent drainage with soil that is comprised of organic matter and is dry and is considered to be mucky peat. This intermittent drainage supports seasonal marsh vegetation within the ordinary high water mark.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</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>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>) 0 = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
Herb Stratum (Plot size: <u>1 x 1 meter</u>) 0 = Total Cover				Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Schoenoplectus californicus</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Rumex crispus</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Juncus effusus</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
Woody Vine Stratum (Plot size: _____) 45 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0 = Total Cover				
% Bare Ground in Herb Stratum <u>55</u> % Cover of Biotic Crust _____				

Remarks:

Consists entirely of hydrophytes.

SOIL

Sampling Point: 12

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)	☐ Salt Crust (B11)	☒ Water Marks (B1) (Riverine)
☐ High Water Table (A2)	☒ Biotic Crust (B12)	☒ Sediment Deposits (B2) (Riverine)
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☒ Drift Deposits (B3) (Riverine)
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☒ Drainage Patterns (B10)
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Dry-Season Water Table (C2)
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)
☒ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☒ Saturation Visible on Aerial Imagery (C9)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☒ FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes ☐ No ☒	Wetland Hydrology Present? Yes ☒ No ☐
Water Table Present?	Yes ☐ No ☒	
Saturation Present?	Yes ☐ No ☒	
(includes capillary fringe)	Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		
Sampling point is in the ordinary high water mark of an intermittent drainage and supports many wetland hydrology indicators. This drainage supports seasonal marsh vegetation which is evident by the amount of organic material in the soil.		

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Willowgrove Project City/County: Davis/Yolo County Sampling Date: 1/28/2025
 Applicant/Owner: Davis Eastside LLC State: CA Sampling Point: 13
 Investigator(s): P. Martin, B. Muller Section, Township, Range: Sections 1 & 2, T8N, R2E
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 0-3
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.572801 Long: -121.712965 Datum: NAD 83
 Soil Map Unit Name: Yolo silt loam, 0 to 2 percent slopes, MLRA 17 NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: Bank of drainage above ordinary high water mark that supports hydrophytes. This sampling point represents uplands and lacks hydric soil and wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>1 x 1 meter</u>)	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				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>1 x 1 meter</u>)				
1. _____				
2. _____				
3. _____				
4. _____				Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain)
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>1 x 1 meter</u>)				
1. <u>Juncus mexicanus</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Elymus triticoides</u>	<u>18</u>	<u>N</u>	<u>FAC</u>	
3. <u>Carduus pycnocephalus</u>	<u>2</u>	<u>N</u>	<u>--</u>	Hydrophytic Vegetation Present? Yes ☒ No ☐ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				Hydrophytic Vegetation Present? Yes ☒ No ☐
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				Hydrophytic Vegetation Present? Yes ☒ No ☐
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Remarks:

Dominated by hydrophytes.

SOIL

Sampling Point: 13

[illegible]

HYDROLOGY

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

Appendix E

Representative Site Photographs



Photograph 1: View of the location of Sample Point 1 in the upland ditch to the northeast of the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 2: View of the location of Sample Point 2 in the upland ditch in the western portion of the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 3: View of the location of Sample Point 3 in the upland ditch in the western portion of the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 4: View of the location of Sample Point 4 in the upland ditch in the western portion of the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 5: View of the location of Sample Point 5 in the upland ditch in the western portion of the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 6: View of the location of the Ordinary High Water Mark Sample Point 1 located along the edge of the low flow channel of the intermittent drainage in the Study Area.

Photographer: Michael Scaffidi

Date: April 16, 2024



Photograph 7: View of the location of the Ordinary High Water Mark Sample Point 2 located at the break in the slope of the bank where shelving was present.

Photographer: Michael Scaffidi Date: April 16, 2024



Photograph 8: View of the location of Sample Point 8 in the central portion of the Study Area.

Photographer: Michael Scaffidi Date: May 23, 2024

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Photograph 9: View of the location of Sample Point 9 in the central portion of the Study Area.
Photographer: Michael Scaffidi Date: May 23, 2024

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