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Subject: Vernal Pool Assessment for the San Jacinto Cultivation Farm Project

Chambers Group, Inc. (Chambers Group) was retained by Roots Properties to conduct a vernal pool assessment for the San Jacinto Cultivation Farm Project (Project). The purpose of this survey was to document existing and potential areas for vernal pools within the Project site in order to evaluate potential impacts of the Project to these resources. No vernal pools or jurisdictional features were observed within the Project site.

Project Site Location and Description

The approximately 67.72-acre Project site is located on parcels 1, 7, and 8, northwest of Sanderson Avenue and Cottonwood Avenue, in the City of San Jacinto, Riverside County, California. The Project site is surrounded by agriculture and the San Jacinto Valley Regional Water and a canal to the north. A dairy farm is located directly west of the site, and an open lot occurs south and southeast of the site. The elevation at the Project site is approximately 1,500 feet above mean sea level (amsl). Maps of the project location and project vicinity are provided in Figure 1 – Project Location and Vicinity Map. Roots Properties plans to develop an outdoor cultivation farm within lands previously used for agriculture.

Regulatory Background

USACE

Clean Water Act

The purpose of the Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of fill material into waters of the United States without a permit from the United States (U.S.) Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 Code of Federal Regulations [CFR] § 328.3(b)). The goals and standards of the CWA are enforced through permit provisions. The USACE generally extends its jurisdiction to all areas meeting the criteria for WOUS. WOUS exclude isolated waters that are not hydrologically connected to navigable rivers and streams. Additionally, USACE jurisdiction over wetlands created by artificial means is decided on a case-by-case basis. The USACE generally does not assume jurisdiction over areas that are (1) artificially irrigated and would revert to upland habitat if the irrigation ceased; or, (2) artificial lakes and ponds created by excavating and/or diking of dry land to collect and retain water, used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing. Other areas that are not considered jurisdictional WOUS include waste treatment ponds, ponds formed by construction activities including borrow pits until abandoned, and ponds created for aesthetic reasons such as reflecting or ornamental ponds (33 CFR Part 328.3).

On April 21, 2020, the U.S. Environmental Protection Agency (EPA) and USACE published the Navigable Waters Protection Rule (NWPR) in the Federal Register to finalize a revised definition of WOUS under the Clean Water Act



(USACE and EPA, 2020). However, the USACE and EPA halted implementation of the NWPR in 2021 and are interpreting waters of the United States consistent with the pre-2015 regulatory definition until further notice.

When a project may create impacts for wetlands, the project requires a permit or a waiver. Substantial impacts to wetlands may require an Individual Permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required from the Regional Water Quality Control Board (RWQCB) for Section 404 permit actions.

Wetlands According to the USACE *Wetland Delineation Manual*, wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands are delineated using three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. According to USACE, all three parameters must be present to qualify as a wetland (USACE 1987).

Hydrophytic Vegetation

Hydrophytic vegetation is defined as “the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (USACE 1987). The potential wetland areas within the Survey Area were surveyed on foot for those areas exhibiting characteristics of jurisdictional waters or wetlands. Vegetation units with potential wetland areas were examined, and data for each vegetation stratum (i.e., tree, shrub, herb, and vine) were recorded on standardized datasheets from the Arid Supplement (USACE 2008). The absolute cover of each plant species present was visually estimated and recorded.

The wetland indicator status of each species recorded was determined by using the *National Wetland Plant Inventory* (Lichvar et. al. 2014). An obligate (OBL) indicator status refers to plants that are almost always a hydrophyte and rarely in uplands. A facultative wet indicator status refers to plants that usually are a hydrophyte but are occasionally found in non-wetlands. A facultative indicator status refers to plants that commonly occur as either a hydrophyte or non-hydrophyte. Facultative upland species occasionally are a hydrophyte but usually occur in uplands. Upland species almost always occur in uplands and rarely are a hydrophyte. A not indicated (NI) status refers to species that have insufficient data available to determine an indicator status at this time for the local region. Plant species nomenclature follows that contained in *The Jepson Online Interchange* (Regents of the University of California 2015) and *The Checklist of the Vascular Plants of San Diego County, Fifth Edition* (Rebman and Simpson 2014). Dominant species with an indicator status of NI or not listed in the 1997 list were evaluated as either wetland or upland indicator species based on local professional knowledge of where the species are most often observed in habitats characteristic of southern California.

Hydric Soils

A hydric soil is a soil type that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USACE 1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds (USACE 2008). The hydric soil criterion is considered fulfilled at a location if soils in the area can be inferred to have a high groundwater table, evidence of prolonged soil saturation exists, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

A sampling point was selected within a potential wetland area where the apparent boundary between wetland and upland was inferred based on changes in the composition of the vegetation and topography. The soil pit was dug to a depth of at least 18 inches or to a depth necessary to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reducing soil environment (e.g., mottling, gleying, and sulfidic odor). In areas where



the direct examination of soil pits were precluded by the pretense of federally endangered species (i.e., fairy shrimp in vernal pools), hydric soils were inferred based on the presence of vegetation and hydrology indicators.

Wetland Hydrology

The presence of wetland hydrology indicators confirm that inundation or saturation has occurred on a site but may not provide information about the timing, duration, or frequency of the event. Hydrology features are generally the most ephemeral of the three wetland parameters (USACE 2008).

Hydrologic information for the site was obtained by reviewing USGS topographic maps and by directly observing hydrology indicators in the field. The wetland hydrology criterion is considered fulfilled at a location if, based upon the conclusions inferred from the field observations, an area has a high probability of being periodically inundated or has soils saturated to the surface at some time during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE 1987). If at least one primary indicator or at least two secondary indicators are found at a sample point, the wetland hydrology criterion is considered fulfilled.

Vernal Pools

Vernal pools are a type of ephemeral wetland that often support endemic rare, threatened, or endangered plant and animal species. USACE provides a vernal pool guidelines for projects involving compensatory mitigation for unavoidable losses of vernal pools and vernal pool complexes. Specific mitigation for impacts to vernal pool complexes that support Federally listed plants or animals will be determined on a case-by-case basis through the ESA Section 7 consultation process with USFWS. CDFW reviews impacts to wetlands to ensure no net loss and would require consultation for vernal pool habitat supporting state-listed plants or animals, utilizing the USFWS Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon as a guide.

Atypical Situations

Because there are situations in which one or more of the wetland parameters has been removed or altered due to recent natural events or human activities, the definition of a wetland includes the phrase “under normal circumstances” (USACE, 1987). To describe these conditions, USACE uses definitions for atypical situations and problem areas. They are as follows:

Atypical situation: refers to areas in which one or more parameters (vegetation, soil, and/or hydrology) have been sufficiently altered by recent human activities or natural events to preclude the presence of wetland indicators of the parameter (USACE, 1987).

Problem areas: wetland types in which wetland indicators of one or more parameters may be periodically lacking due to normal seasonal or annual variations in environmental conditions that result from causes other than human activities or catastrophic natural events. Representative examples of problem areas include seasonal wetlands, wetlands on drumlins, prairie potholes, and vegetated flats (USACE, 1987).

Atypical situations and problem areas may lack one or more of the three criteria, yet still may be considered wetlands. Background information on the previous condition of the area, field observations and/or the identification of undisturbed reference sites adjacent to atypical sites may indicate that the site met the wetland criteria prior to disturbance. Additional delineation procedures would be employed if normal circumstances did not occur on a site.

RWQCB Jurisdictional Waters

The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes waters of the State (WOS) as mandated by both the federal CWA Section 401 and the California Porter-Cologne Water Quality Control Act. On April 6, 2021, the State Water Resources Control Board adopted a resolution to confirm that the “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to



Waters of the State” is in effect as state policy for water quality control. WOS are defined in State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Water Resources Control Board, 2021) to include any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB defines wetlands 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 following wetlands are identified in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State as WOS:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
 - a. Approved by an agency as compensatory mitigation for impacts to other WOS, except where the approving agency explicitly identifies the mitigation as being of limited duration;
 - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
 - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
 - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not WOS unless they also satisfy the criteria set forth in 2, 3a, or 3b):
 - i. Industrial or municipal wastewater treatment or disposal,
 - ii. ii. Settling of sediment,
 - iii. iii. Detention, retention, infiltration, or treatment of stormwater runoff and
 - iv. other pollutants or runoff subject to regulation under a municipal,
 - v. construction, or industrial stormwater permitting program,
 - vi. iv. Treatment of surface waters,
 - vii. v. Agricultural crop irrigation or stock watering,
 - viii. vi. Fire suppression,
 - ix. vii. Industrial processing or cooling,
 - x. viii. Active surface mining – even if the site is managed for interim wetlands
 - xi. functions and values,
 - xii. ix. Log storage,
 - xiii. x. Treatment, storage, or distribution of recycled water, or
 - xiv. xi. Maximizing groundwater recharge (this does not include wetlands that
 - xv. have incidental groundwater recharge benefits); or
 - xvi. xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not WOS. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the State.

The RWQCB can assert jurisdiction over hydrologically isolated vernal pools as “isolated waters” under the Porter-Cologne Water Quality Act.



Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1966 (California Water Code §§ 13000-13999.10) mandates that activities that may affect waters of the State shall be regulated to attain the highest quality. The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) are the relevant permitting agencies. RWQCB provides regulations for a “non-degradation policy” that are especially protective of areas with high water quality. Porter-Cologne reserves the right for the State of California (State) to regulate activities that could affect the quantity and/or quality of surface and/or ground waters, including isolated wetlands, within the state. Waters of the State include isolated waters that are no longer regulated by USACE. If the project is proposed to discharge into waters of the State, a Waste Discharge Report (WDR), or a waiver to WDRs, must be filed before beginning discharge.

CDFW Jurisdictional Waters

Under Sections 1600–1607 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., riparian woodland) associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW may also assert jurisdiction over modified or man-made waterways; such jurisdiction is generally based on the value of such features to support riparian or aquatic plant or animal species. For clarification, of features that may be subject to CDFW jurisdiction, the CDFW Legal Advisor has prepared the following opinion (CDFG ESD 1994):

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects, and riparian vegetation will be treated like natural waterways.
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses should be treated by [CDFW] as natural waterways.
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions.

CDFW jurisdictional limits may also include artificial stock ponds and irrigation ditches constructed within uplands, and outer drip line limits of adjacent riparian habitat supported by a river, stream, or lake regardless of the riparian area’s federal status or its location beyond the defined bed, bank or channel.

Though CDFW does not regulate vernal pools under Section 1602 of the Fish and Game Code, CDFW will assert jurisdiction over California state listed threatened and/or endangered species occurring within vernal pools via the California Endangered Species Act (CESA).

MSHCP Other Plan Requirements

Regardless of whether the site is located within any Criteria Cells, Narrow Endemic Plant Species Survey Areas, or proposed Conservation Areas, and whether it is subject to the focused species surveys associated with those areas, all projects within the Multiple Species Habitat Conservation Plan (MSHCP) area require an evaluation of potential impacts on vernal pools and the protected species associated with those habitats. Vernal pools are defined in the MSHCP as follows:

Vernal pools are seasonal wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season, but normally lack wetland indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetland plant species are



normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.

When a site supports suitable vernal pool habitat for the wildlife species covered by the MSHCP listed below, focused surveys are required to determine their presence or absence from the site.

Vernal Pool Invertebrates

- Santa Rosa Plateau fairy shrimp (*Linderiella santarosae*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- vernal pool fairy shrimp (*Branchinecta lynchi*)

Methods

The Survey Area encompasses the Project site, which includes the entirety of the 67.72-acre parcel.

Literature Review

Prior to performing the vernal pool assessment survey, Chambers Group staff conducted a literature review for soils and jurisdictional water features that contribute to hydrology known to occur within the Survey Area. In addition, historical aerial imagery was reviewed over the past 15 years in order to determine areas where potential vernal pools may have occurred (Attachment 1: Figure 2 – Historical Aerial Imagery).

Soils

Prior to performing the field survey, soil maps for the Survey Area were referenced in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2022).

Hydrology

Prior to the field survey, Chambers Group conducted a database analysis to identify potential jurisdictional waters within the Study Area. This included a review of the USFWS National Wetlands Inventory (NWI) maps, National Hydrography Dataset (NHD) blue-line drainages, and historical aerial photographs of the Study Area.

Field Survey

A field delineation of vernal pools was conducted within the Survey Area on April 6, 2022. Potential USACE/RWQCB/CDFW jurisdictional areas identified during the literature search were verified in the field for the presence of definable soils, wetland vegetation, riparian habitat, and hydrology. In the absence of a defined wetland, the presence of a bed and bank or the upper limit of the ordinary high water marks (OHWM) was recorded. Plant species observed or detected within the Survey Area were recorded. In addition, site photographs were taken depicting current site conditions (Attachment 2).

Vernal pools are often difficult to characterize as a wetland because one or more of the wetland parameters (soils, hydrology, and vegetation) may be periodically lacking due to variations in environmental conditions (USACE 1987). Furthermore, vernal pools located within access roads are subject to vehicular disturbance and, in the absence of vegetation, constitute an “atypical situation.” Alternative methods described in the *Arid West Supplement* were used to delineate wetland areas. Potential vernal pools lacking vegetation were assessed based on presence of hydrology indicators, local relief and landscape position, vegetation within reference sites, aerial imagery, documented or likely presence of USACE vernal pool indicator species, and other background information.



Hydric soils in vernal pools were inferred based on the presence of strong hydrology indicators. Vernal pool watersheds were visually based on changes in the local microtopography and documented using a hand-held Global Positioning System (GPS) unit with sub-meter accuracy.

Results

Chambers Group biologists Paul Morrissey and Heather Franklin conducted the vernal pool assessment survey within the Survey Area to identify existing or potential vernal pools.

Biological Site Conditions

Soils

According to the results from the USDA NRCS Web Soil Survey (USDA 2022), the Project site is located in the Western Riverside Area, CA679 part of the soil map. Six soil types are known to occur within and/or adjacent to the Project site (Attachment 1: Figure 3 – USDA Soils Map). No hydric soils occur within the Project site. These soil types are described below.

- Grangeville loamy fine sand (GoB) occurs in the western portion of the Survey Area. The parent material is alluvium derived from granite. The available water storage is classified as moderate (approximately 7.4 inches) with a depth to the water table of 0 inches.
- Grangeville sandy loam drained, saline-alkali (GpB) occurs in the northwestern portion of the Survey Area. The parent material is alluvium derived from granite. The available water storage is classified as moderate (approximately 7.2 inches) with a depth to the water table of 0 inches.
- Traver fine sandy loam, saline alkali (Ts) occurs in northeastern portion of the Survey Area. The available water storage is classified as moderate (approximately 6.4 inches) with a depth to the water table of more than 80 inches.
- Traver fine sandy loam, strongly saline-alkali eroded (Tt2) occurs in the northeastern, northwestern and southern portions of the Survey Area. The available water storage is classified as moderate (approximately 6.4 inches) with a depth to the water table of more than 80 inches.
- Traver loamy fine sand eroded (Tp2) occurs in the western, middle, and southern portions of the Survey Area. The parent material is alluvium derived from granite. The available water storage is classified as moderate (approximately 6.2 inches) with a depth to the water table of more than 80 inches.
- Traver loamy fine sand saline-alkali eroded (Tr2) occurs in the middle portion and throughout the boundaries of the Survey Area. The parent material is alluvium derived from granite. The available water storage is classified as moderate (approximately 6.2 inches) with a depth to the water table of more than 80 inches.

Hydrology

The NHD and NWI maps showed no wetlands or jurisdictional features such as drainages or swales within the Project site, and no vernal pools or water features were observed during the survey (Attachment 1: Figure 4 – Jurisdictional Waters Map). In addition, no vernal pools or areas that could support vernal pools were observed in the historical aerial images over the past 15 years. Surface flow appears to flow southwest and likely turns into sheet flow once it exits the Project site. A canal runs parallel to the northern boundary outside the Project site just south of the San Jacinto Valley Regional Water Plant, and a man-made roadside ditch occurs between Sanderson Avenue and the Project site. Both features are located outside the Project boundary, and no work will occur within or adjacent to either feature. The non-jurisdictional roadside ditch located between Sanderson Avenue and the Project site directs surface overflow during rain events and runs under an existing access road as the entrance to the Project site. This area can be avoided during construction with the uses of best management practices (BMPs) during ingress/egress to the Project site.



Vegetation Communities and Other Areas

Two vegetation communities or land types were found within the Survey Area during the biological reconnaissance survey: Ruderal and Developed Landscape (Attachment 1: Figure 5 – Vegetation Communities). The majority of the Project site is developed, with some portions of ruderal vegetation occurring along the outer edges of the site. The communities are described in the following subsections.

Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in ruderal areas are typically characterized as heavily compacted or frequently disturbed. The vegetation in these areas is adapted to compact soils where water does not readily penetrate the soil. Ruderal areas are often dominated by species of the *Centaurea*, *Brassica*, *Malva*, *Salsola*, *Eremocarpus*, *Amaranthus*, and *Atriplex* genera.

Areas with Ruderal vegetation were present along the fence surrounding the Survey Area. Native plant species identified within this community on site included two dry big saltbush individuals (*Atriplex lentiformis*), fiddleneck (*Amsinckia menziesii*), and immature California buckwheat (*Eriogonum fasciculatum* var. *polifolium*). Non-native plant species identified within this community on site included red-stemmed filaree (*Erodium cicutarium*), stinknet (*Oncosiphon piluliferum*), foxtail (*Hordeum murinum*), Italian rye grass (*Festuca perennis*), Russian-thistle (*Salsola australis*), and cheeseweed (*Malva parviflora*).

Developed

Developed areas have been altered by humans and now display man-made structures such as urban areas, houses, paved roads, buildings, parks, and other maintained areas (Gray and Bramlet 1992). Developed areas are present throughout the Survey Area, including graded soils, assembled frames for greenhouses, and portions surrounding the greenhouse frames were unvegetated. Based on information provided, the site was graded by a previous owner.

Vernal Pool Assessment Results

Historical aerial imagery was reviewed over the past 15 years in order to determine areas where potential vernal pools may have occurred (Attachment 1: Figure 2 – Historical Aerial Imagery). No vernal pools or areas that could support vernal pools were observed in the historical aerial images over the past 15 years.

No playas or basins were observed within the Project site that could support wetland or vernal pool habitat (i.e., fairy shrimp species). One non-jurisdictional roadside ditch located between Sanderson Avenue and the Project site which directs surface overflow during rain events and runs under an existing access road as the entrance to the Project site. The roadside ditch was comprised of bare ground and emergent ruderal species. No wetland plant species were observed within the ditch. Furthermore, the man-made ditch will be avoided during construction activities.

Emergent ruderal vegetative growth found along Sanderson Avenue, especially in the northeast corner of the Survey Area. This area was inspected for vernal pool indicator species such as San Jacinto Valley crownscale (*Atriplex coronate* var. *notatior*), and other species known to occur in vernal pools and wetlands including popcorn flower (*Plagiobothrys nothofulvus*) and wooly marbles (*Psilocarphus brevissimus*). No vernal pool indicator species were observed within the Survey Area.

Conclusions and Recommendations

Hydrology

No vernal pools or jurisdictional features were observed within the Project site. Surface flow exiting the site in a southwest direction does not appear to connect to any offsite water features subject to CDFW, RWQCB or USACE jurisdiction. A canal runs parallel to the northern boundary outside the Project site, just south of the San Jacinto Valley Regional Water Plant. This feature includes a raised berm which would prevent surface runoff from entering



the canal. A non-jurisdictional man-made roadside ditch occurs between Sanderson Avenue and the Project site. No work is anticipated to occur to the canal or the roadside ditch during the construction activities, and both features can be avoided. No playas or basins that would support vernal pool wildlife species including fairy shrimp were observed within the Survey Area. No vernal pool indicator or wetland plant species were observed within the Survey Area. No hydric soils or areas that could potentially support vernal pools were observed within the Project site. With the absence of vernal pools or wetlands within the Project site or immediately adjacent to the Project site, no impacts to vernal pools are anticipated to occur as a result of Project activities.

Please contact me at (949) 261-5414 ext. 7232 if you have any questions or concerns regarding this memo report.

Sincerely,

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Attachments

Attachment 1: Figure 1 – Project Location and Vicinity Map

Figure 2 – Historical Aerial Imagery

Figure 3 – USDA Soils Map

Figure 4 – Jurisdictional Waters Map

Figure 5 – Vegetation Communities

Attachment 2: Site Photographs



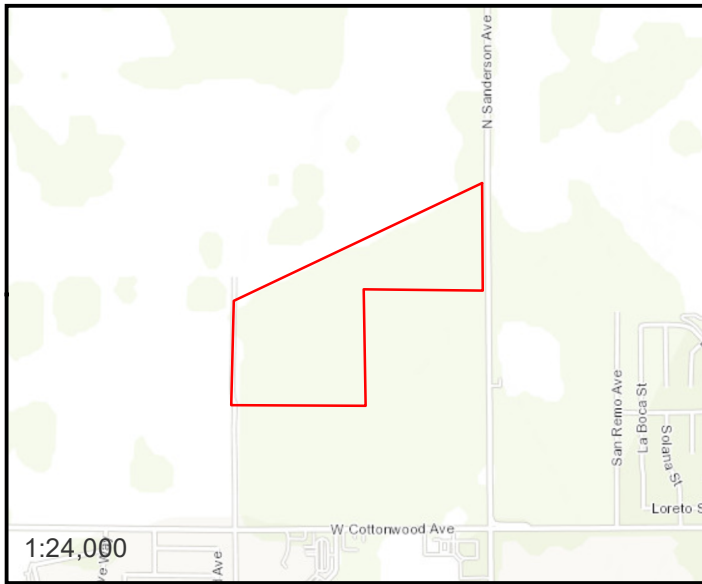
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ATTACHMENT 1 – FIGURES





Project Location

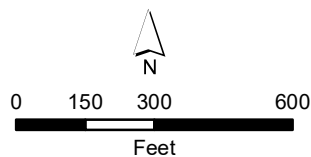
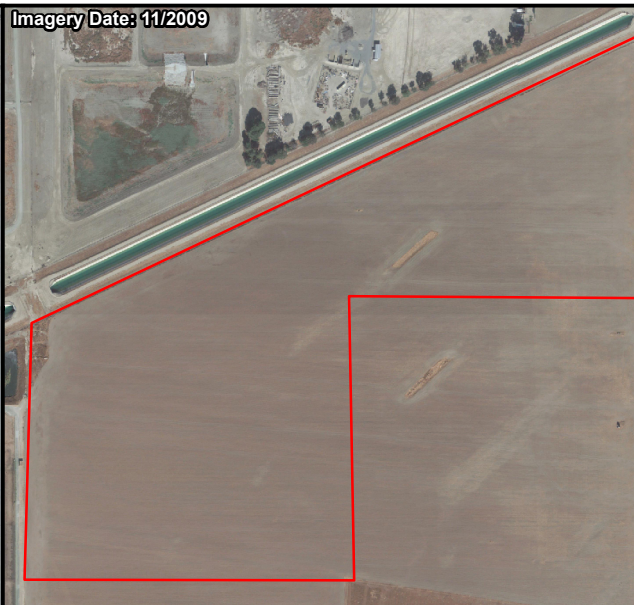


Figure 1
San Jacinto Cultivation Farm Project
Project Location and Vicinity

Imagery Date: 12/2006



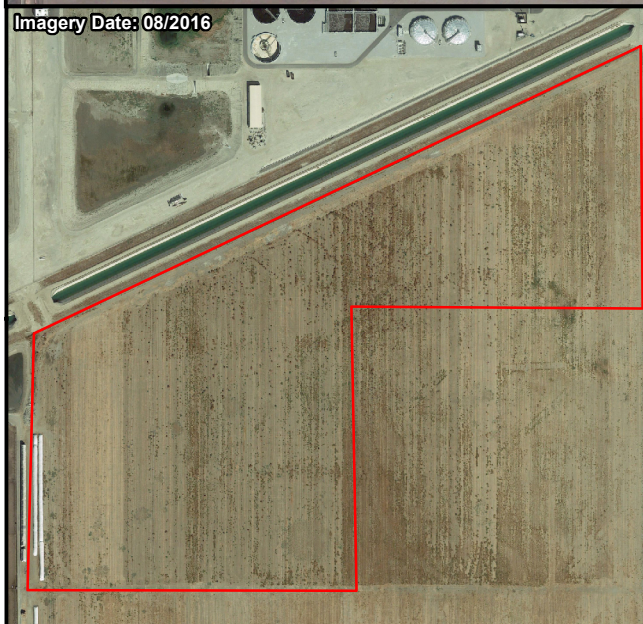
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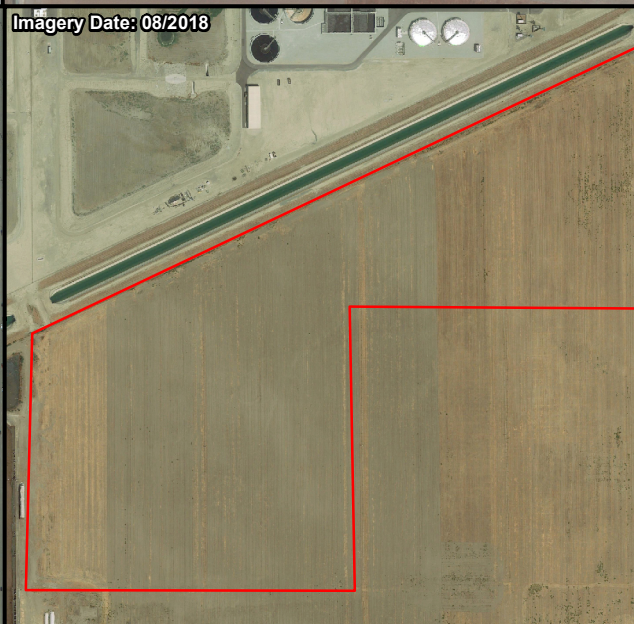
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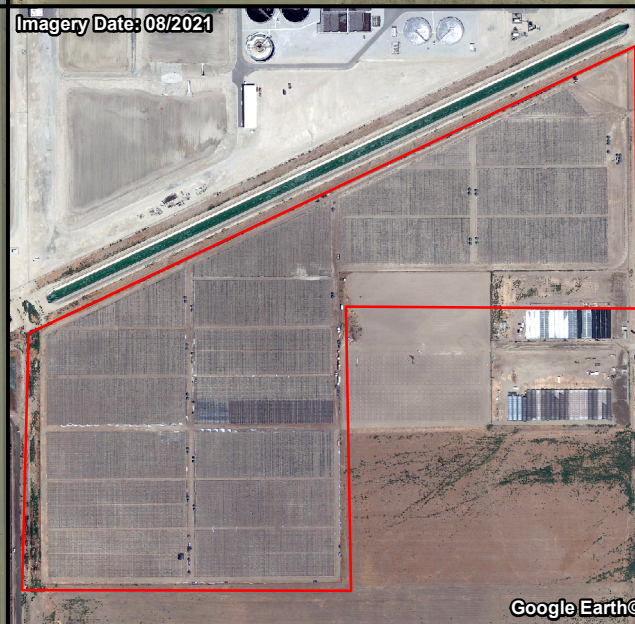
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Imagery Date: 08/2018



Imagery Date: 08/2021



Google Earth©

 Project Location

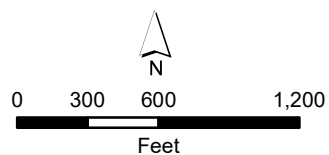








Figure 2
San Jacinto Cultivation Farm Project
Historical Aerial Imagry

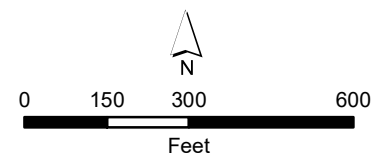
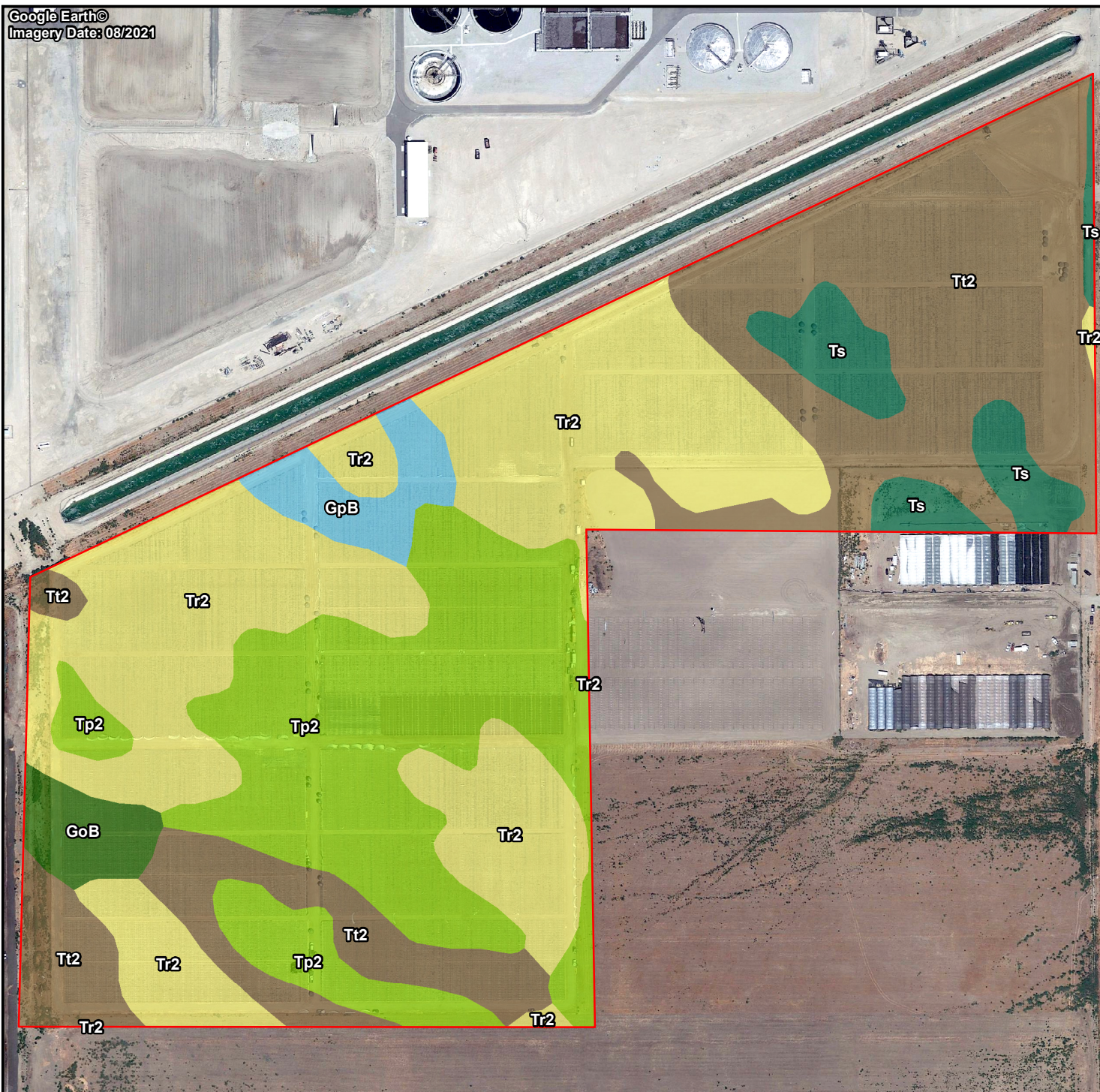
Google Earth©
Imagery Date: 08/2021


Figure 3
San Jacinto Cultivation Farm Project
USDA Soils

 Project Location


USGS Soils


-  Grangeville loamy fine sand, drained, 0 to 5 percent slopes
-  Grangeville sandy loam, drained, saline-alkali, 0 to 5 percent slopes
-  Traver fine sandy loam, saline-alkali
-  Traver fine sandy loam, strongly saline-alkali, eroded
-  Traver loamy fine sand, eroded
-  Traver loamy fine sand, saline-alkali, eroded





 Project Location

NHD


 Connector


 Pipeline


 Stream/River


 Artificial Path


NWI

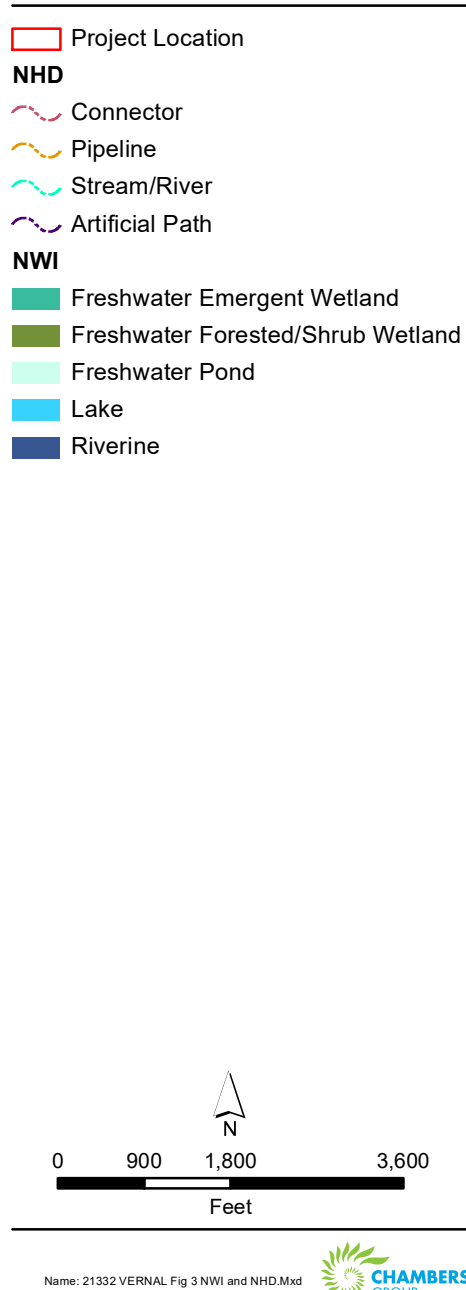
 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Freshwater Pond

 Lake

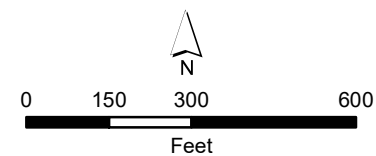
 Riverine



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Figure 5
San Jacinto Cultivation Farm Project
Vegetation Communities

- Project Location
- Vegetation Community**
- Developed (60.83 ac)
 - Ruderal (6.94 ac)



ATTACHMENT 2 – SITE PHOTOGRAPHS



ATTACHMENT 2 – SITE PHOTOGRAPHS



Photo 1.

Northern boundary of the Project site between the canal to the north and the site. There is no connectivity from the canal into the site. Photo is facing west.



Photo 2.

Photo showing area along northern access road. No vernal pools or indicative species were observed along the road. Photo is facing northwest.



Photo 3.

Access road along the western boundary of the site. No potential vernal pools were observed throughout the road or adjacent to the road. Photo is facing south.



Photo 4.

Large retention pond located within the dairy farm to the west of the site. There is no connectivity between the pond and the Project site. Photo is facing west.



Photo 5.

Photo showing the lack of connectivity between the retention pond and the Project site. Photo is facing northwest.



Photo 6.

Southwest corner of the Project site. Photo shows no potential vernal pools within or adjacent to the Project site. Photo is facing southwest.



Photo 7.

Overview of Project site and the adjacent lot along the southern portion of the site. No features or connectivity occur within or adjacent to the site. Photo is facing east.