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Aquatic Resources Delineation

Vega SES 4 Solar Project

Imperial County, California

Prepared For:

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	dograce	Fahrenheit
Г	dedrees	rantenneu

CDFW California Department of Fish and Wildlife

CFR Code of Federal Regulations

CWA Clean Water Act
ED Ephemeral drainages

FEW Freshwater emergent wetlands

FR Federal Register

FSW Freshwater forested/shrub wetlands
GIS Geographic Information System
GPS Global Positioning System

MW Megawatt

NETROnline Nationwide Environmental Title Research Online NOAA National Oceanic and Atmospheric Administration

NRCS Natural Resources Conservation Service

NWI National Wetlands Inventory
NWPR Navigable Waters Protection Rule

OMBIL Operations and Maintenance Business Information Link

OHWM Ordinary high water mark
ORM OMBIL Regulatory Module

PD Perennial drainages

PJD Preliminary Jurisdictional Delineation

Project Vega SES 4 Solar Project

LIST OF ACRONYMS AND ABBREVIATIONS

RWQCB Regional Water Quality Control Board SAA Streambed Alteration Agreement

SR State Route

Study Area Solar Project and 500-foot Buffer sUAS small unmanned aircraft system SWRCB State Water Resources Control Board

TNW traditional navigable waters USACE U.S. Army Corps of Engineers

USEPA U.S. Environmental Protection Agency

USGS U.S. Geological Survey

WDR Waste discharge regulations

1.0 INTRODUCTION

This aquatic resources delineation report was prepared to describe the aquatic resources at the Vega SES 4 Solar Project (Project) located on ±511 acres of vacant land Imperial County, California. The Project includes a ±450-acre 100-Megawatt (MW) direct current and 400 MW-hour battery storage utility-scale solar project on two parcels (Assessor's Parcel Numbers 059-300-015; 059-300-017). In addition, the Project includes a ±60-acre access road, totaling approximately 22 linear miles. For purposes of this report, "Study Area" refers to the solar field plus the access road, and a 150-foot buffer around each. The Project is within the southern portion of Imperial County, approximately nine miles southeast of Calexico, California and 0.5 mile south of California State Route (SR) 98. It resides in the middle of the All-American Canal to the north, and the U.S.-Mexico border, to the south. The access road runs east-west directly north and adjacent to the U.S./Mexico border wall (Figure 1. *Project Location and Vicinity*). A complete summary of geographic information for the Study Area is provided in Table 1. A map of the site is provided as Figure 2.

Table 1. USGS Quadrangle Information						
USGS 7.5-Minute Quad Map Name	Township	Range Section(s)		Approximate Center of Study Area		
Bonds Corner, CA (1976) Midway Well NW, CA (1979) Midway Well, CA (1979) Grays Well, CA (1976)	17S	16E 17E 18E 19E 20E	12, 13, 14 7, 8, 9, 10, 11, 12 1, 7, 8, 9, 10, 11, 12 1, 2, 3, 4, 5, 6 1, 6	32.682898, -115.304246		

Driving directions to the Study Area are included as Attachment A. The Study Area is located on the south side of the All-American Canal and requires contacting U.S. Border Patrol prior to crossing the canal. After crossing the canal, turn right and follow the dirt access road along the canal for one mile.

This report describes aquatic resources identified within the Study Area that may be regulated by the Porter-Cologne Water Quality Act, California Fish and Game Code Sections 1600 and 1602, and the U.S. Army Corps of Engineers (USACE) pursuant to Sections 401 and 404 of the federal Clean Water Act (CWA). The information presented in this report provides data required by the USACE Los Angeles District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). The aquatic resource boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the Study Area and are subject to modification following the USACE verification process.

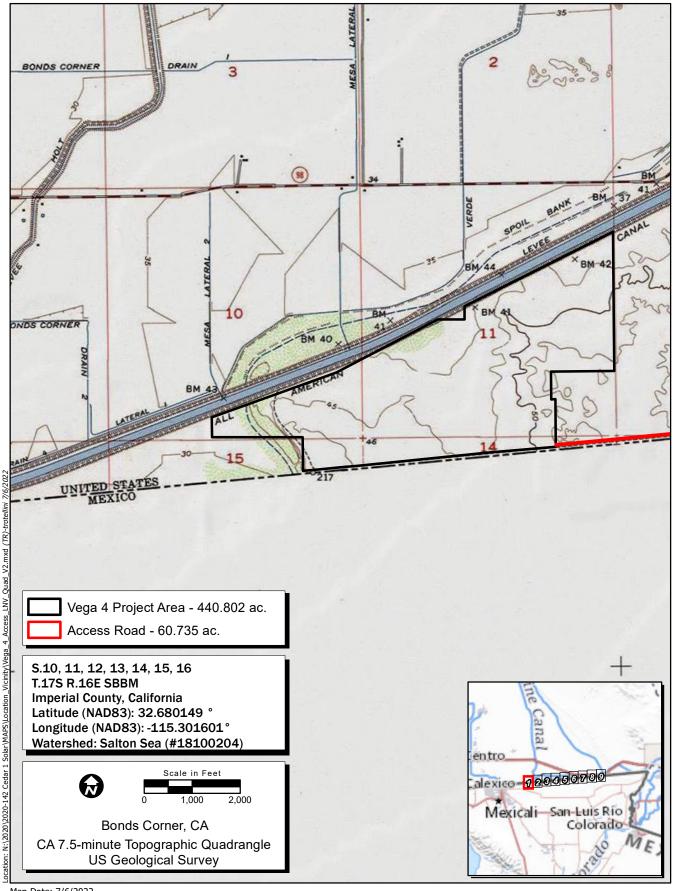
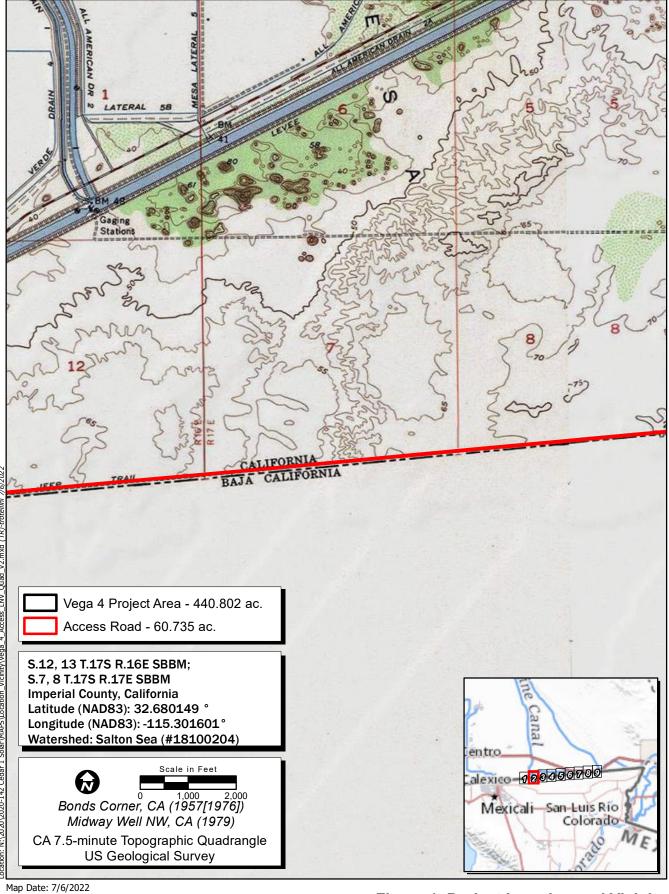


Figure 1. Project Location and Vicinity Sheet 1 of 9



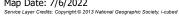


Figure 1. Project Location and Vicinity Sheet 2 of 9

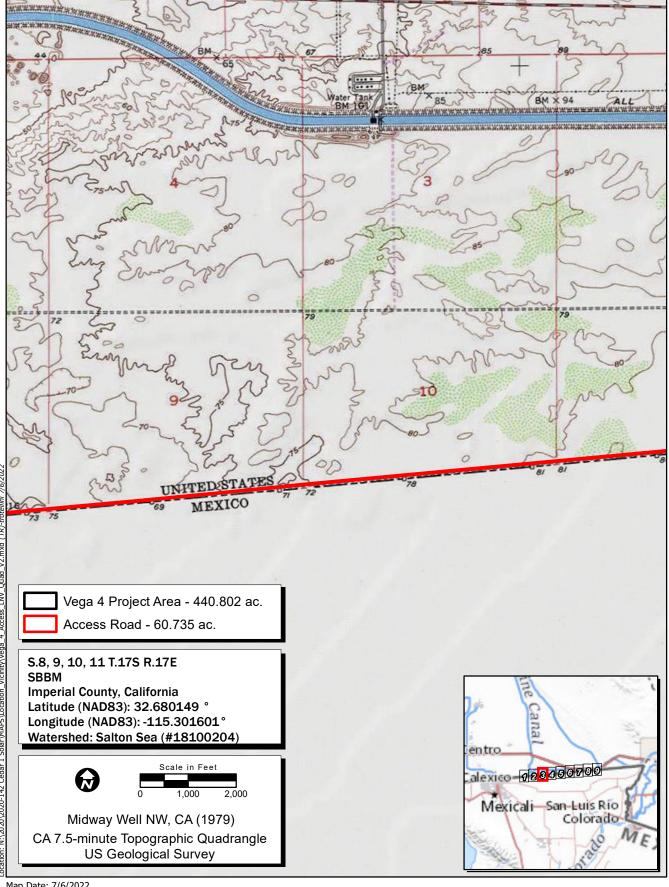
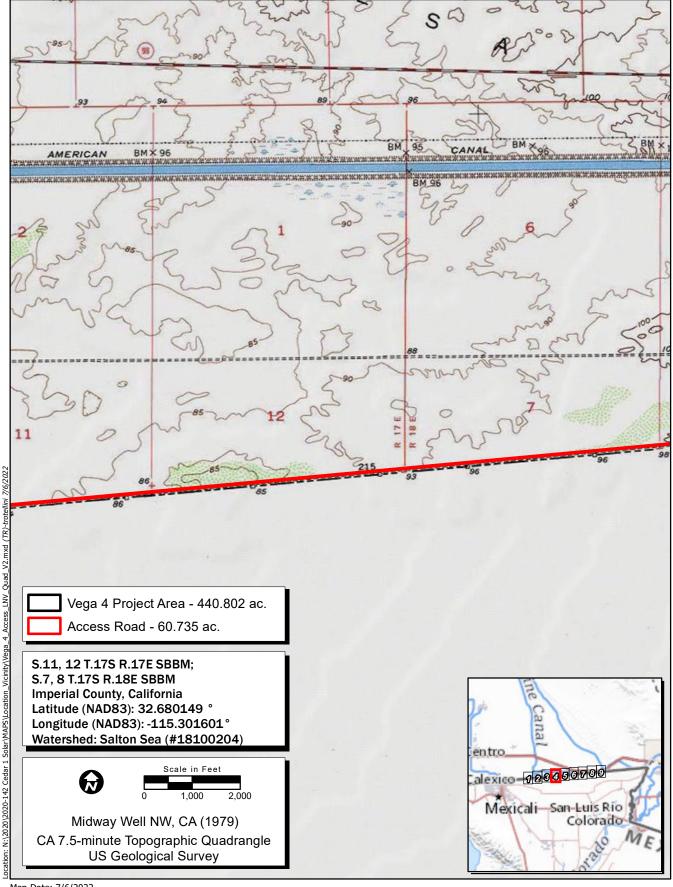
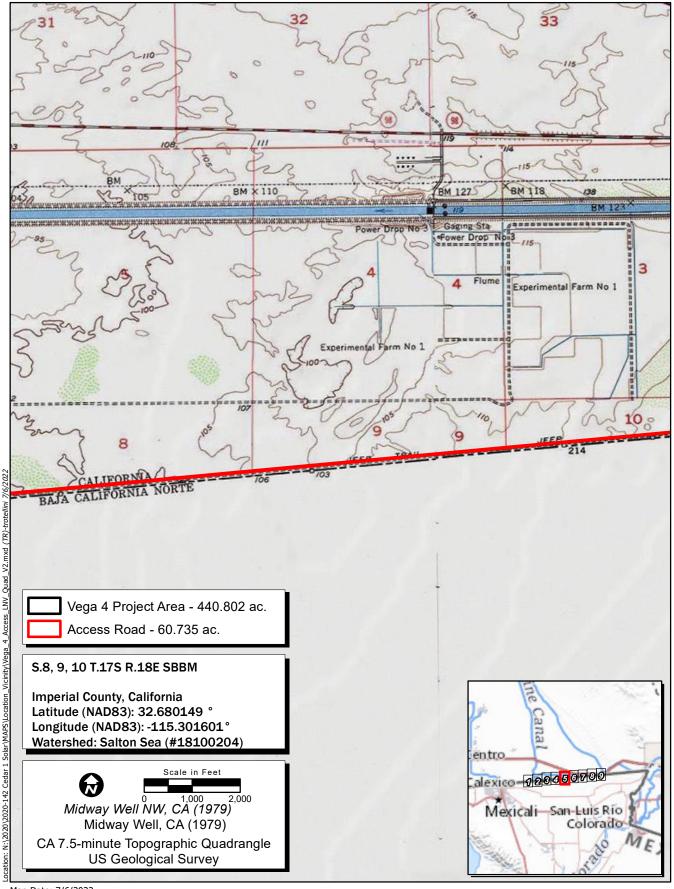


Figure 1. Project Location and Vicinity Sheet 3 of 9



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Figure 1. Project Location and Vicinity Sheet 4 of 9



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Figure 1. Project Location and Vicinity Sheet 5 of 9

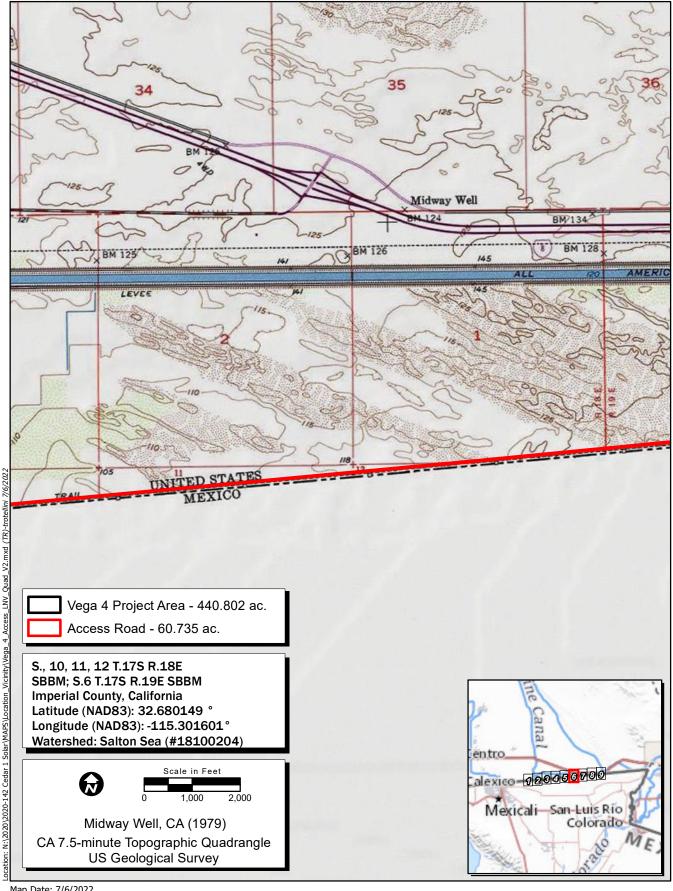


Figure 1. Project Location and Vicinity
Sheet 6 of 9

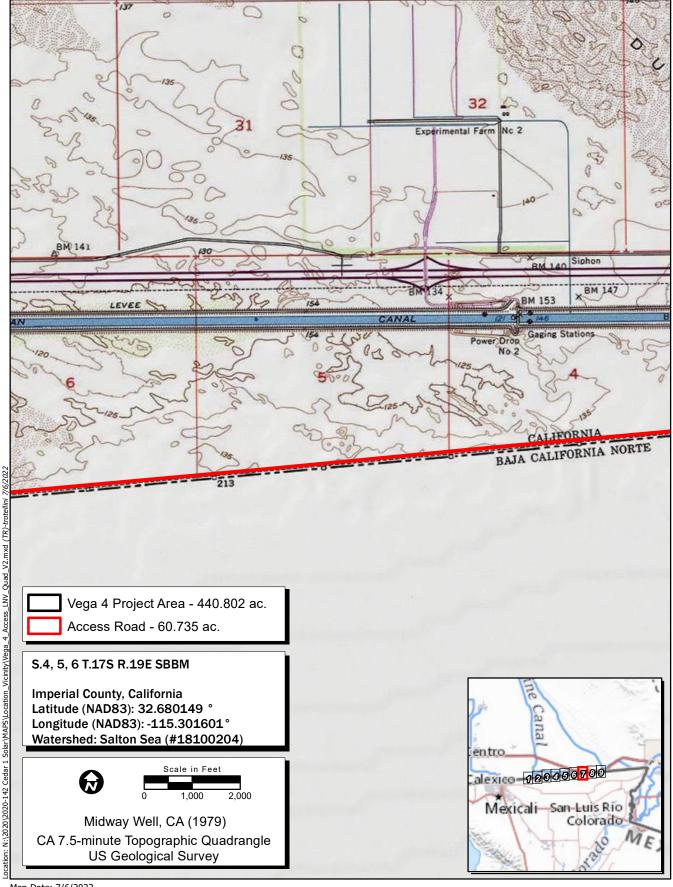


Figure 1. Project Location and Vicinity Sheet 7 of 9

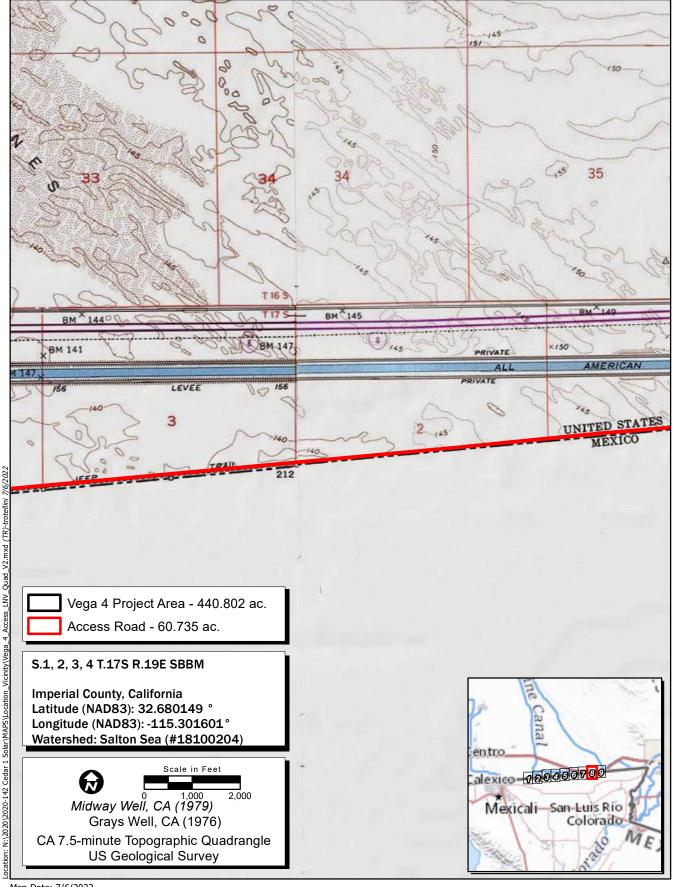


Figure 1. Project Location and Vicinity Sheet 8 of 9

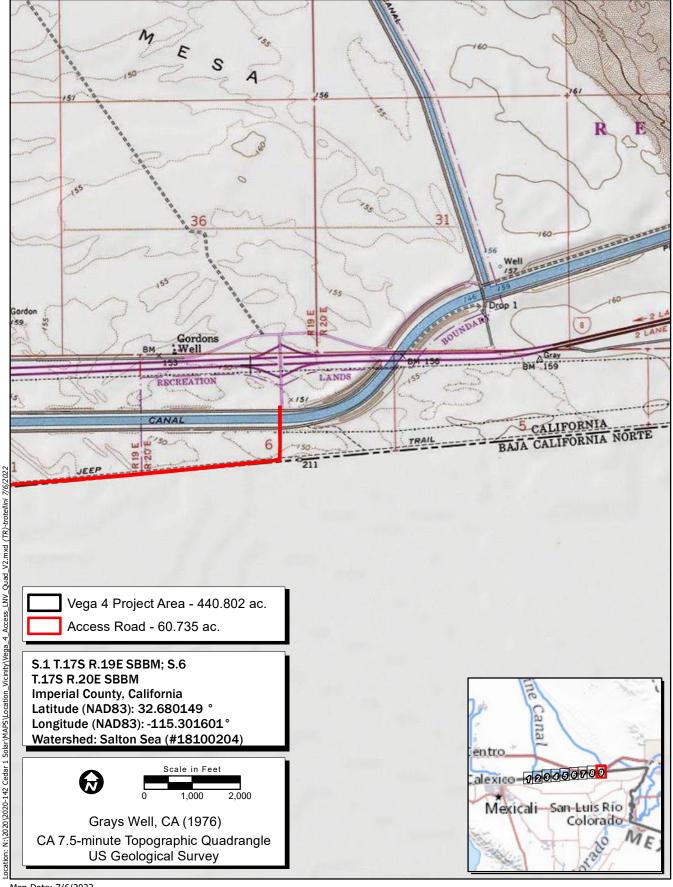
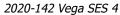


Figure 1. Project Location and Vicinity Sheet 9 of 9



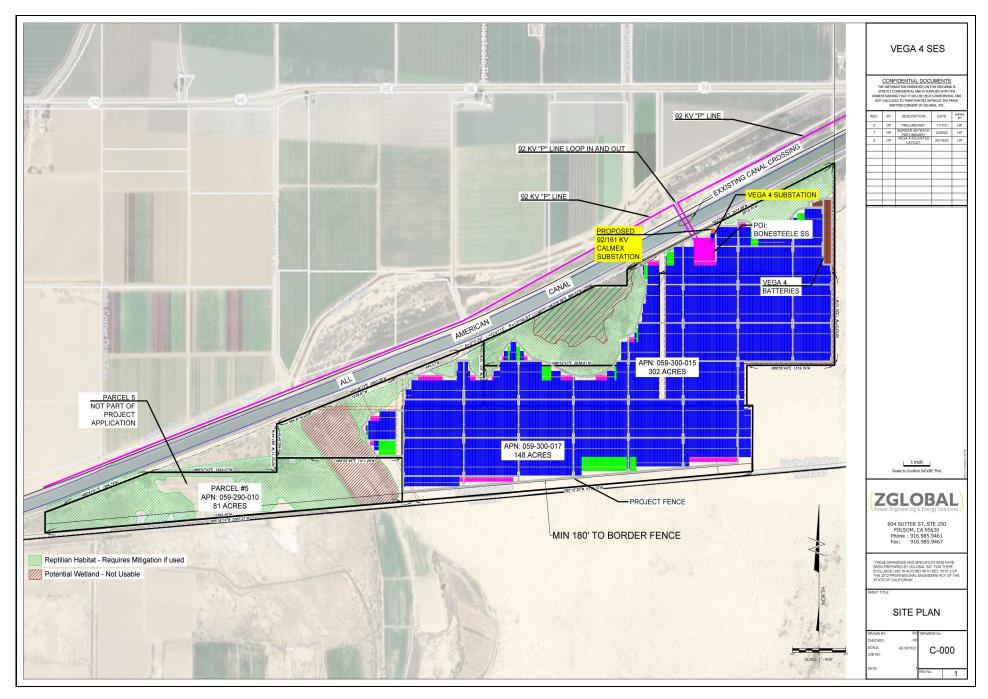




Figure 2. Site Plan 2020-142 Vega SES 4

2.0 REGULATORY SETTING

2.1 Waters of the United States

This report describes aquatic resources, including wetlands, that may be regulated by the USACE under Section 404 of the federal CWA. Waters of the U.S. includes both wetlands and other waters, as described below.

2.1.1 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" (51 Federal Register [FR] 41250, Nov. 13, 1986, as amended at 58 FR 45036, Aug. 25, 1993). Wetlands can be perennial or intermittent.

2.1.2 Other Waters

Other waters that may be found in the Study Area are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses [51 FR 41250, Nov. 13, 1986, as amended at 58 FR 45036, Aug. 25, 1993]. The limit of USACE jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 Code of Federal Regulations [CFR] 328.4(c)(1) as the "ordinary high water mark" (OHWM). The OHWM is defined as the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" approximation of the lateral limit of USACE jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

2.2 Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the CWA. *Discharges of fill material* is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations (CFR) § 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code [USC] 1341) is regulated by the Regional Water Quality Control Board (RWQCB) and requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification, "gives states and authorized tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into waters of the US" (33 USC 1251).

On April 21, 2020, the U.S. Environmental Protection Agency (USEPA) and the Department of the Army (Army) published the NWPR to define waters of the United States in the *Federal Register*. This rule became effective on June 22, 2020.

In August 2021, a judge in the U.S. District Court for the District of Arizona ruled to vacate the NWPR. On October 1, 2021, Judge Màrquez of the U.S. District Court for the District of Arizona granted the United States Environmental Protection Agency (EPA) and United States Department of the Army, Corps of Engineers (Corps) an extension until November 30, 2021 to make proposals for further proceedings concerning challenges to the 2020 regulatory definition of the "Waters of the United States" (WOTUS) and Navigable Waters Protection Rule (NWPR). On December 7, 2021 the EPA and USACE announced a proposed rule to revise the definition of "waters of the United States." This proposal would return to the pre-2015 definitions of waters of the U.S. The proposed rule was open for public comment until February 7, 2022. The final rule has not yet been issued.

In the USACE/USEPA CWA regulations (33 CFR 328.3[a]), the term "waters of the U.S." is defined as follows:

- 1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- 2. All interstate waters including interstate wetlands;
- 3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
- 4. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- 5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
- 6. The territorial seas;
- 7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in 1-6 above

2.3 Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code of Regulations [CCR], title 23, § 3855) (State Water Resources Control Board [SWRCB] 2021). Waters of the State is defined as any surface water or groundwater, including saline waters, within the boundaries of the State (California Water Code § 13050[e]). Pollution is defined as an alteration of the quality of the waters of the state by waste to a degree that unreasonably affects its beneficial uses (California Water Code § 13050) and includes filling in

waters of the State. Note that CCR, title 23, § 3855 applies only to individual water quality certifications, but the new Procedures extend the application of § 3855 to individual waste discharge requirements for discharges of dredged or fill material to Waters of the State and waivers thereof.

A permit for impacts to Waters of the State would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB considers whether project activities could impact the quality of Waters of the State.

2.4 California Fish and Game Code Section 1602

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CDFW 2021). In Title 14 of the CCR, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

The CDFW's jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the top of bank (TOB). It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW will submit a SAA that includes measures to protect affected fish and wildlife resources; this SAA is the final proposal agreed upon by the CDFW and the applicant.

Table 2. Summary of Federal, State, and Local Regulations					
Federal Regulations					
Regulation	Resource	Regulating Agencies			
Federal Clean Water Act	Aquatic features meeting the definition of Waters of the US	USACE, RWQCB			
State Regulations					
Regulation	Resource	Regulating Agency			
California Fish and Game Code Section 1602	River, stream, or lake and associated riparian habitat	CDFW			
Local Regulations					
Regulation	Regulating Agency				
Porter-Cologne Water Quality Act	Aquatic features meeting the definition of Waters of the State	RWQCB			

3.0 METHODS

3.1 Pre-Survey Investigations

Due to the size of the area and limited road access, an initial survey utilizing a small, unmanned aircraft system (sUAS) was conducted to assess current site conditions and gather high-resolution imagery. Photos collected during the sUAS survey were then combined into a single orthomosaic image that was incorporated into mapping files in a Geographic Information System (GIS). The information gathered from the sUAS/drone survey were then used to assist delineation specialists with accurate mapping of potential aquatic resources onsite. Prior to conducting the field delineations, the following resources were reviewed to identify potentially jurisdictional areas: sUAS imagery, satellite aerial imagery (Google Earth 2018, ESRI 2022), the National Wetlands Database, the online web soil survey (Natural Resources Conservation Service [NRCS] 2022a), and hydric soils list for the area.

3.2 Field Survey Investigation

This aquatic resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data was recorded on Wetland Determination Data Forms - Arid West Region and Arid West OHWM Datasheets (Attachment B). ESRI® and sUAS aerial imagery were used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the Web Soil Survey (NRCS 2020a) were used to aid in identifying hydric soils in the field. The Jepson Manual, 2nd Edition (Baldwin et al. 2012) and the USACE National Wetland Plant List (USACE 2018) were used for plant nomenclature and identification.

Where jurisdictional features were present, the extent of potential Waters of the State and CDFW-regulated streambed and top-of-bank limits were determined using the OHWM in accordance with USACE requirements and guidelines, as well as RWQCB and CDFW delineation guidance. Streambed widths were based on evidence of OHWM as observed during the field survey. In addition, each of the drainages were evaluated for the presence or absence of sediment deposits, litter/debris, water stains, soil shelving, and/or exposed roots indicating active hydrology within the channel. Streambed widths and other lateral limits of jurisdiction were calculated and recorded. The extent of associated riparian habitat was based on the extent of the canopy of the riparian community within or directly adjacent to the feature. Bank-to-bank width measures were also recorded and used as a measure of CDFW jurisdictional boundary where features lacked riparian vegetation. Feature characteristics and measurements were recorded directly into the data dictionary in the GPS unit. Characteristics of the majority of mapped features were also documented in photographs.

Paired locations were sampled to evaluate whether the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. Additional non-paired locations were sampled to confirm boundaries. Aquatic resources within the Study Area were recorded in the field using a post-processing capable Global Positioning System (GPS) unit with sub-meter accuracy (e.g., Juniper Geode™). Feature characteristics and measurements were recorded directly into the data dictionary in the GPS unit. Characteristics of mapped features were also documented in photographs.

Four separate field surveys were conducted by ECORP delineation specialists in 2020; the first being a general field reconnaissance of the Study Area to identify areas supporting potential state and federal jurisdictional waters. The initial survey was conducted in conjunction with the biological reconnaissance survey on September 28, 2020, by Christina Congedo, Caroline Garcia, Greg Hampton, and Christina Torres. The subsequent field surveys and formal delineations were conducted to verify preliminary results observed in the September survey and to collect additional data and photographs. These surveys were conducted on November 4-5, 2020, by Christina Congedo, Jennifer Kendrick, and Christina Torres; an additional survey was conducted on November 12, 2020, by Christina Congedo, Caroline Garcia, and Christina Torres. The entire Study Area was visually surveyed to determine the location and extent of aquatic resources, and special attention was given to the features identified during the initial survey described above. On April 12-13, 2022, Christina Torres and Caroline Garcia revisited the Study Area to assess the access road and verify that conditions of the solar field parcels had not changed since the 2020 surveys.

3.3 Post-Processing

The data collected in the field utilized ArcGIS[™] Collector on a device (smartphone or tablet) connected to a submeter external receiver. The submeter receiver applies differential correction instantaneously in the field using the Satellite Based Augmentation System. The data were then viewed and analyzed for verification, edited, and compiled in GIS format at the time of download. ArcGIS[™] software was used to develop the geodatabase and the shapefiles depicted on the figures included in this report.

4.0 RESULTS

4.1 Existing Site Conditions

The Study Area is located within relatively flat to gently sloping terrain situated at an elevational range of approximately 11 meters (38 feet) to 48 meters (159 feet) above mean sea level in Imperial County, California. The average winter low temperature in the vicinity of the Study Area is 44.0) and the average summer high temperature is 105.1°F. Average annual precipitation for El Centro is approximately 2.90 inches, which falls as rain (National Oceanic and Atmospheric Administration [NOAA] 2022a). A summary of rainfall data is provided in Table 3 below.

Table 3. Rainfall Data Summary					
Season	Station	Total Precipitation (Inches)	Average Precipitation per Event (Inches)		
2018-2019 ¹	El Centro 2 SSW, CA US	2.72	0.544		
2019-2020 ¹	El Centro 2 SSW, CA US	5.01	0.626		
2020-20211	El Centro 2 SSW, CA US	0.880	0.440		
2021-20222	El Centro 2 SSW, CA US	0.470	0.157		

¹ Rainfall Data from October 1- September 30 (NOAA 2022b)

A typical year analysis of the Study Area via a single point method was conducted using the USACE Antecedent Precipitation Tool (APT, USACE 2021). The APT analysis determines whether precipitation, drought, and other climatic conditions from the previous three months are *wet*, *normal*, or *dry* for the geographic area based on a rolling 30-year period (USEPA 2022). The APT was run for the dates the wetland delineation data were collected between September 28, 2020, November 4-5, 2020, and November 12, 2020. The APT demonstrated the site conditions on these dates represent a time of year referenced as the dry season, that the general region and site were in a moderate to severe drought, and that site conditions were normal in climatic conditions. The APT was also run for the dates the wetland delineation data were collected between April 12-13, 2022. The APT demonstrated the site conditions on these dates represent a time of year referenced as the dry season, that the general region and site were in an extreme drought, and that site conditions were normal in climatic conditions.

4.1.1 Vegetation Communities

Vegetation within the Study Area is characteristic of creosote bush scrub, riparian scrub, and wetland habitats. The eastern portion of the solar field consists primarily of disturbed creosote – white bursage scrub and disturbed areas with bordering riparian scrub and wetland habitats to the northern edge and western section of the Project. The western portion of the solar field primarily consists of riparian scrub and wetland habitats. The access road and adjacent areas consist of a mosaic of creosote bush scrub, creosote bush – white bursage scrub, and tamarisk thickets. There are four types of vegetation communities occurring within the Project: arrow weed thickets (disturbed), creosote bush scrub, creosote bush scrub – white bursage scrub (disturbed), and tamarisk thickets. Three land use types also occur within the Project: disturbed, urban/developed, and urban/developed (roads). Four additional vegetation communities were observed within the buffer, but not within the Study Area, and include: creosote bush scrub – white bursage scrub, creosote bush scrub (disturbed), active agriculture, and fallow agriculture.

Arrow weed thickets are associated with moderate to dense scrub primarily dominated by arrow weed (*Pluchea sericea*). Other species that occur as scattered individuals included tamarisk (*Tamarix* spp.), willow baccharis (*Baccharis salicina*), and big saltbush (*Atriplex lentiformis*). Disturbed arrow weed thickets are arrow weed thickets that have been previously altered. On this Project, this vegetation cover is characterized as sparser. Other plant species observed included alkali goldenbush (*Isocoma acradenia*).

² Rainfall Data from October 1 – April 11 (NOAA 2022b)

Creosote bush scrub is dominated by a nearly monotypic stand of creosote bush (*Larrea tridentata*) with an open canopy and an herbaceous layer of seasonal annuals and perennials. Other species that occurred on the Project included white bursage (*Ambrosia dumosa*), apricot mallow (*Sphaeralcea ambigua*), and fanleaf crinkle mat (*Tiquilia plicata*). Disturbed areas of this community were sparser with a higher density of nonnative herbs. Other plant species observed include ephedra (*Ephedra trifurca* and *Ephedra* sp.) and crinklemat.

Creosote bush – white bursage scrub consists of creosote bush and white bursage that are co-dominant in the shrub canopy with an absent to intermittent herbaceous layer of seasonal annuals. Along the access road, other plant species observed within this community include ephedra, alkali goldenbush, and scattered individuals of mesquite (*Prosopis* sp.). Within the planned solar field, this vegetation cover is disturbed and is characterized as sparser with a high percentage of nonnative plant species including common Mediterranean grass (*Schismus barbatus*) and Saharan mustard (*Brassica tournefortii*). Other plant species included dyebush (*Psorothamnus emoryi*) and fanleaf crinkle mat.

Tamarisk thickets are characterized by a weedy monoculture of tamarisk. Within the Study Area, tamarisk and arrow weed were often co-dominant in this vegetation community. Other plant species observed included cattails (*Typha* spp.), screw bean mesquite (*Prosopis pubescens*), and willow baccharis.

Disturbed land includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and off-highway vehicle use, but lack development. On this Project, the areas consisted primarily of bare ground and Mediterranean grass. Other plant species observed on the Project included dyebush and white bursage.

Areas mapped as developed have been constructed upon or otherwise physically altered to an extent that natural vegetation communities are no longer supported. On the Study Area, this land cover was dominant and consisted primarily of compacted dirt roads, structures, and landscape trees including Mexican fan palm (*Washingtonia robusta*) and Mexican palo verde (*Parkinsonia aculeata*).

Active agriculture includes planted, typically monotypic, rows of crops of annual and perennial species with open space between rows. Species composition frequently changes by season and year. Active agriculture often occurs in upland areas with high soil quality, or floodplains and are almost always artificially irrigated. This land cover was observed in the eastern portion and southwest of the solar field and south of the access road.

Fallow agricultural lands include remnant signs of row crops with open space between rows. Agricultural lands often occur in upland areas with high soil quality, or floodplains, and are almost always artificially irrigated. This land cover was observed periodically to the south of the access road within the country of Mexico. Access to view these areas was obstructed by the U.S./Mexico border wall, but unvegetated row crops were observed from a distance.

4.1.2 Soils

According to the Web Soil Survey (NRCS 2022a), twelve soil units, or types, have been mapped within the Study Area (Figure 3). Summary characteristics based on official series descriptions for each of the soil series mapped within the alignments are provided in Table 4 below (NRCS 2022a; 2022b; 2022c).

Table 4. Natural Resources Conservation Service Soil Types within the Study Area						
Map Unit Symbol	Map Unit Name	Taxonomic Class	Taxonomic Order	Drainage Class	Hydric Rating	Location
102	Badland	N/A	N/A	N/A	N/A	Solar Field
Holtville-Imperial silty clay loams		Clayey over loamy, montmorillonitic (calcareous), hyperthermic Typic Torrifluvents	Entisols	Well drained	No	Access Road
119	Indio-Vint complex	Coarse-silty, mixed (calcareous), hyperthermic Typic Torrifluvents	Entisols	Well drained	No	Solar Field
126	Niland fine sand	Sandy over clayey, mixed (calcareous), hyperthermic Typic Torrifluvents	Entisols	Moderately well drained	No	Solar Field
131	Rositas sand, 2 to 5 percent slopes	Mixed, hyperthermic Typic Torripsamments	Entisols	Somewhat excessively drained	No	Solar Field
132	Rositas fine sand, 0 to 2 percent slopes	Mixed, hyperthermic Typic Torripsamments	Entisols	Somewhat excessively drained	No	Solar Field, Access Road
133	Rositas fine sand, 2 to 9 percent slopes	Mixed, hyperthermic Typic Torripsamments	Entisols	Somewhat excessively drained	No	Access Road
135	Rositas fine sand, wet, 0 to 2 percent slopes	Mixed, hyperthermic Typic Torripsamments	Entisols	Moderately well drained	No	Solar Field, Access Road
136	Rositas loamy fine sand, 0 to 2 percent slopes	Mixed, hyperthermic Typic Torripsamments	Entisols	Somewhat excessively drained	No	Solar Field, Access Road
139	Superstition loamy fine sand	Sandy, mixed, hyperthermic Typic Calciorthids	Aridisols	Somewhat excessively drained	No	Access Road
142	Vint loamy very fine sand, wet	Sandy, mixed, hyperthermic Typic Torrifluvents	Entisols	Moderately well drained	No	Solar Field
145	Water	N/A	N/A	N/A	N/A	Access Road

4.1.3 National Wetland Inventory

According to the National Wetlands Inventory (NWI, USFWS 2022a), there are two Palustrine features and two Riverine features mapped within the Study Area (Figure 4). All features correspond to aquatic features identified during the field study.

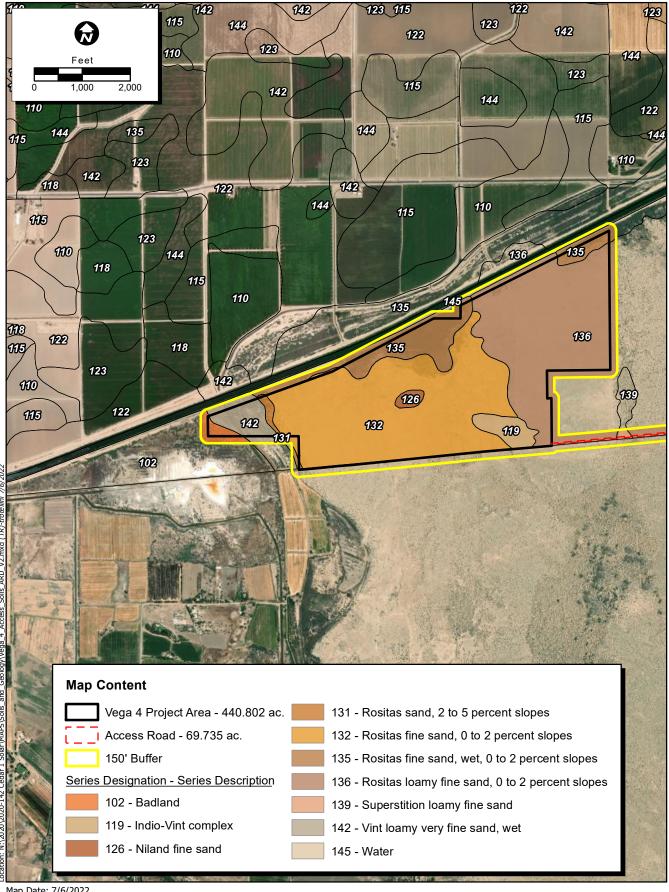
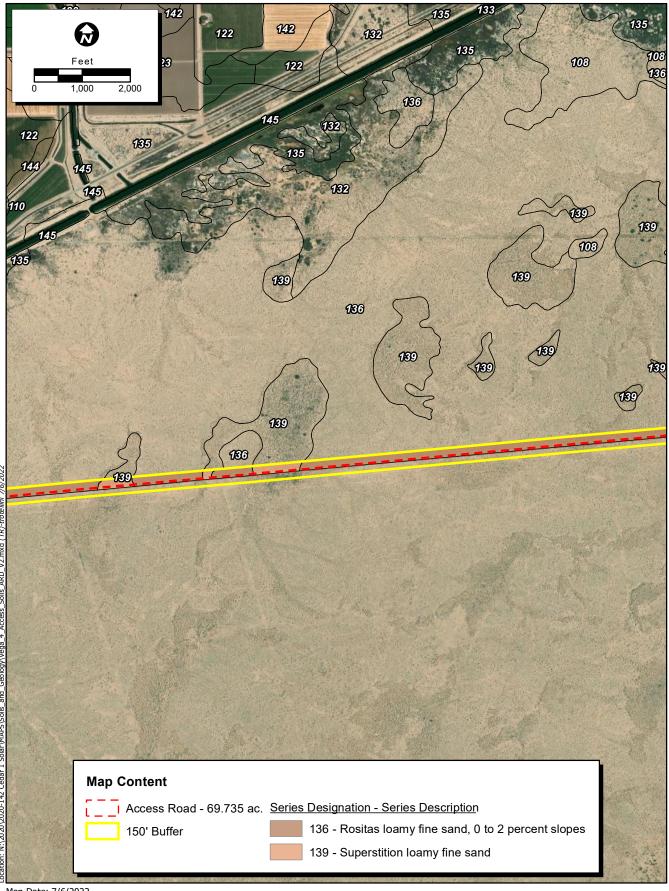






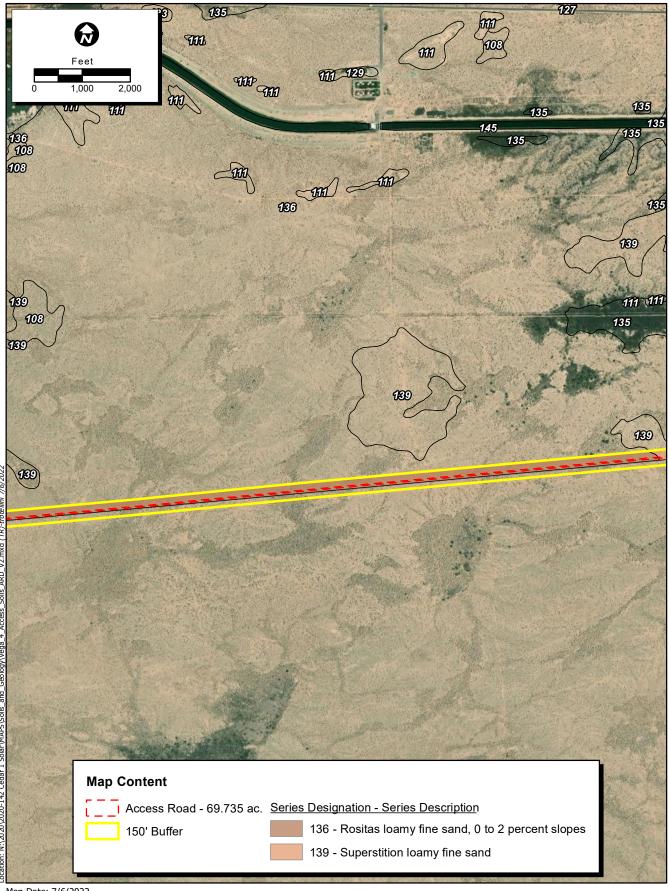
Figure 3. Natural Resources Conservation Service Soil Types - Sheet 1 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Euri, Maxar, Earthstar Geographics, and the GIS Use Community



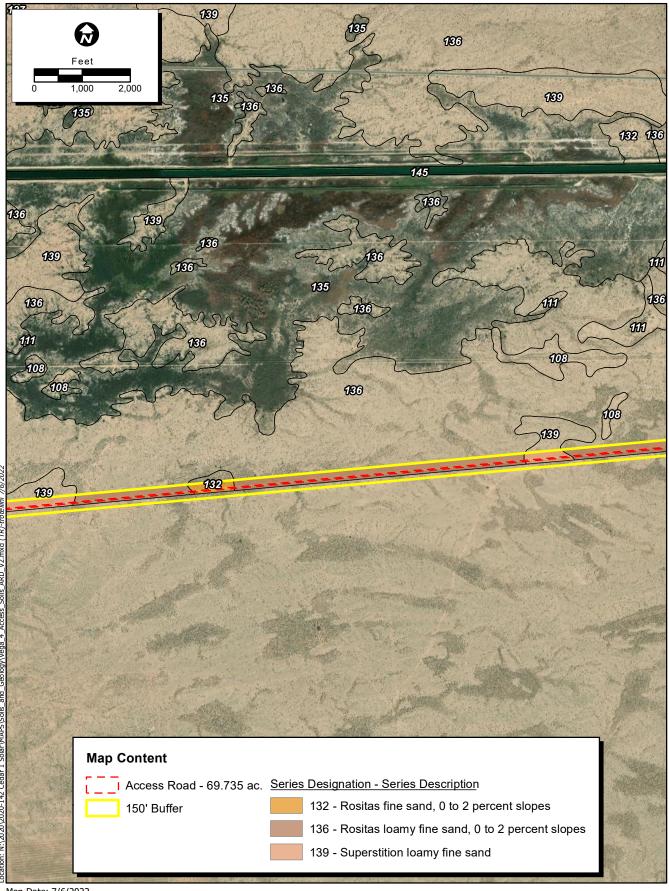
Figure 3. Natural Resources Conservation Service Soil Types - Sheet 2 of 9



Map Date: 7/6/2022 Service Layer Credits: Source: Earl, Maxar, Earthstar Geographics, and the GIS User Community



Figure 3. Natural Resources Conservation Service Soil Types - Sheet 3 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS Use Community



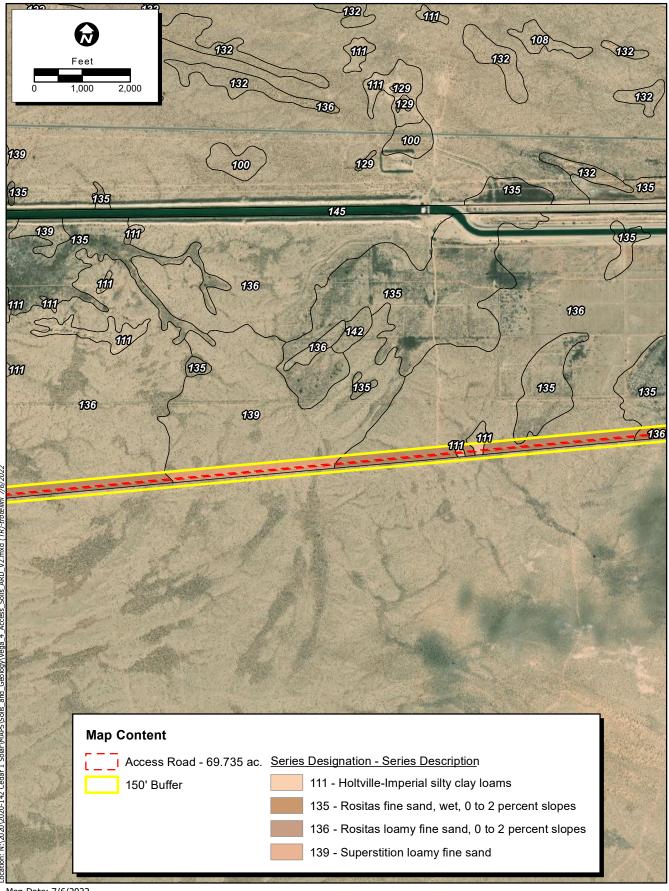
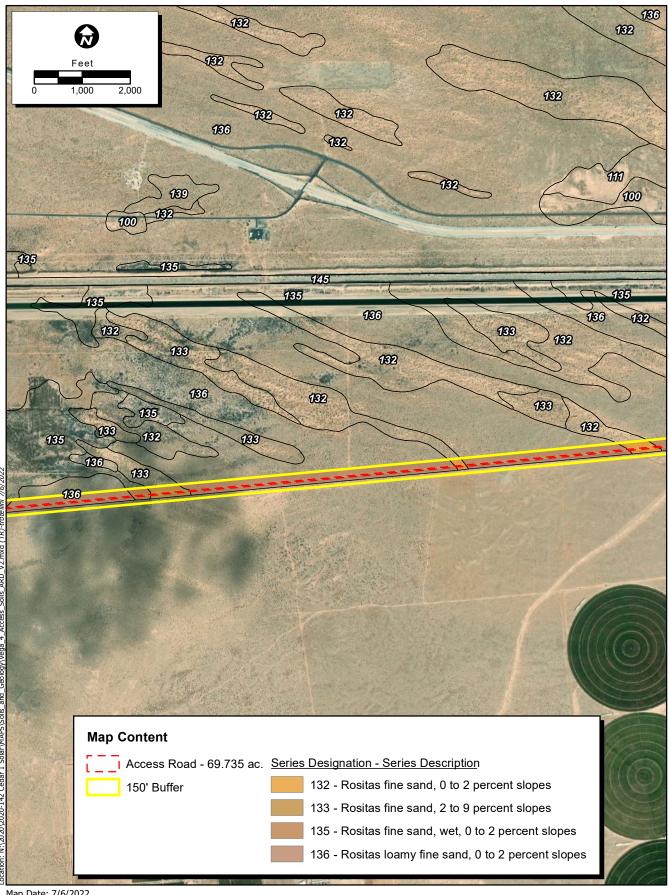






Figure 3. Natural Resources Conservation Service Soil Types - Sheet 5 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS Use Community



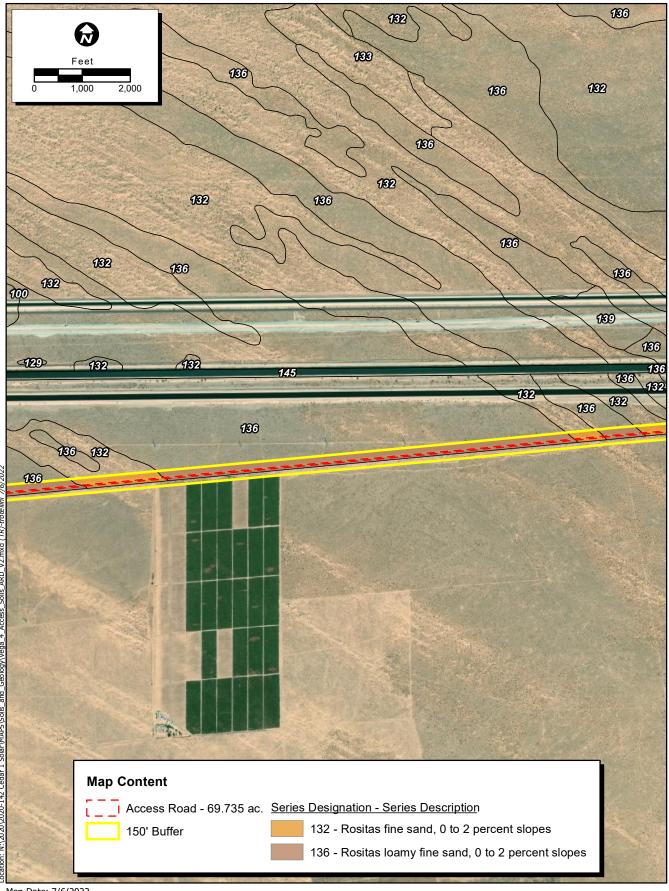
Figure 3. Natural Resources Conservation Service Soil Types - Sheet 6 of 9







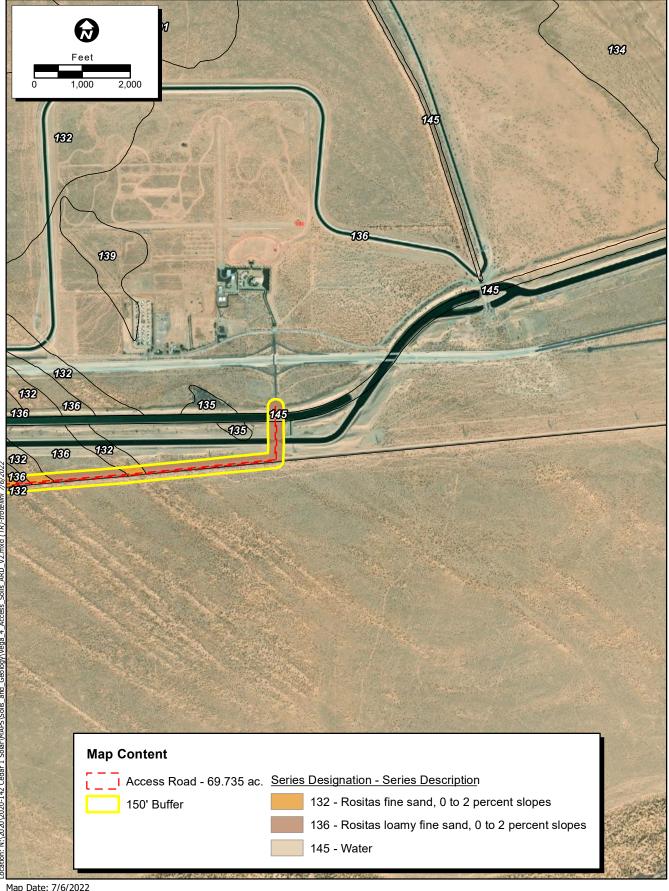
Figure 3. Natural Resources Conservation Service Soil Types - Sheet 7 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS Use Community



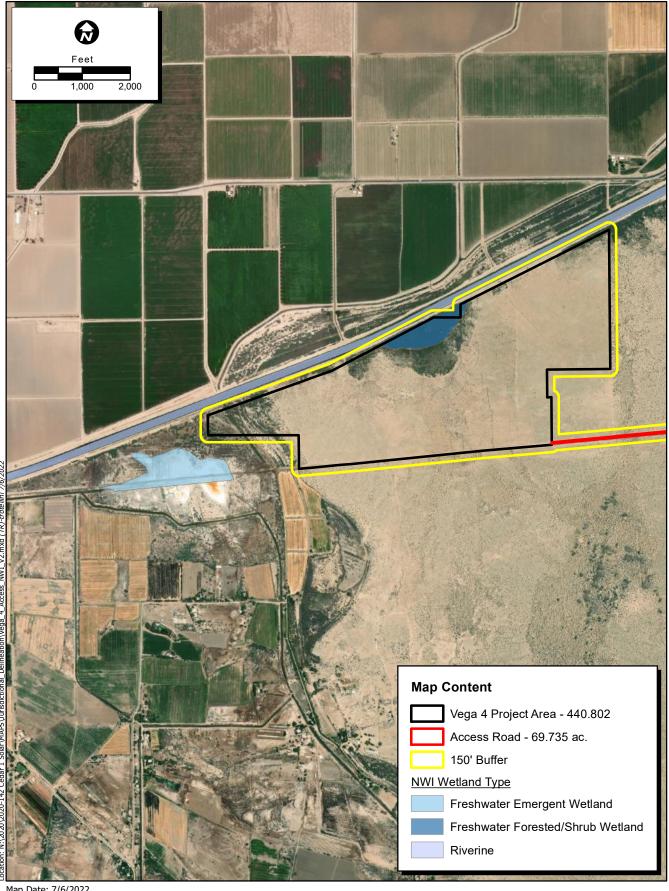
Figure 3. Natural Resources Conservation Service Soil Types - Sheet 8 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS Use:
Community



Figure 3. Natural Resources Conservation Service Soil Types - Sheet 9 of 9



Map Date: 7/6/2022 Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Figure 4. National Wetlands Inventory Sheet 1 of 9

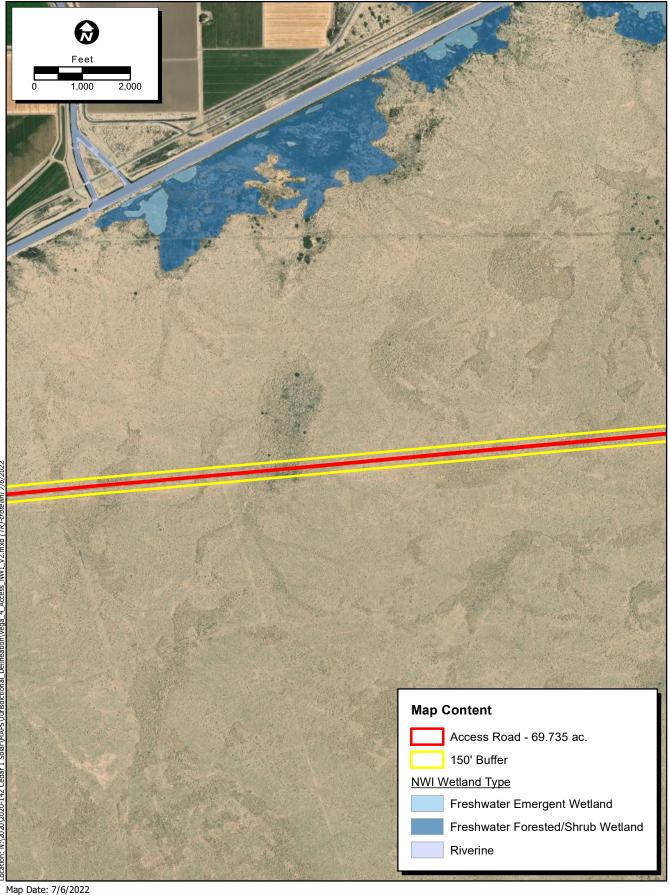






Figure 4. National Wetlands Inventory Sheet 2 of 9

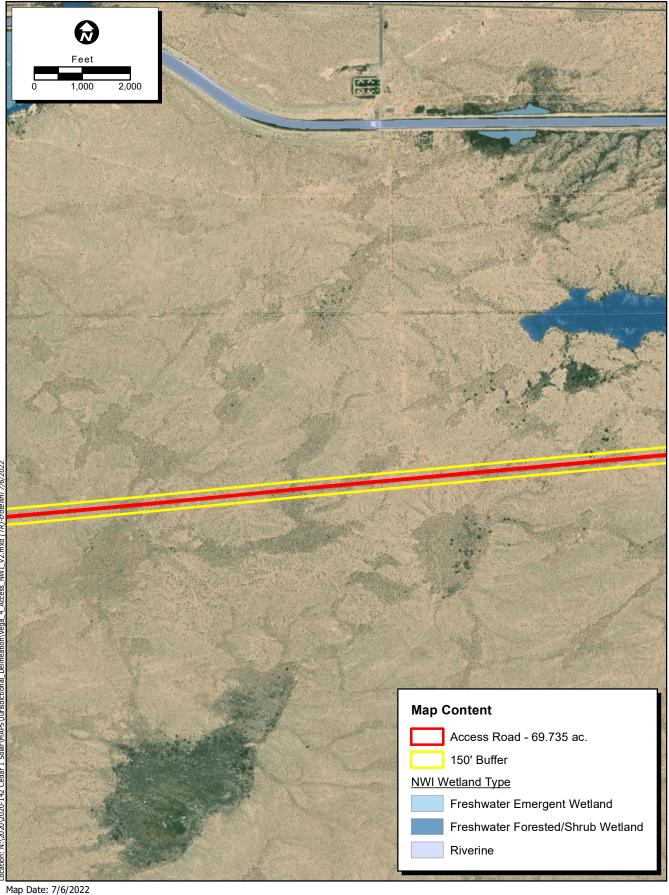
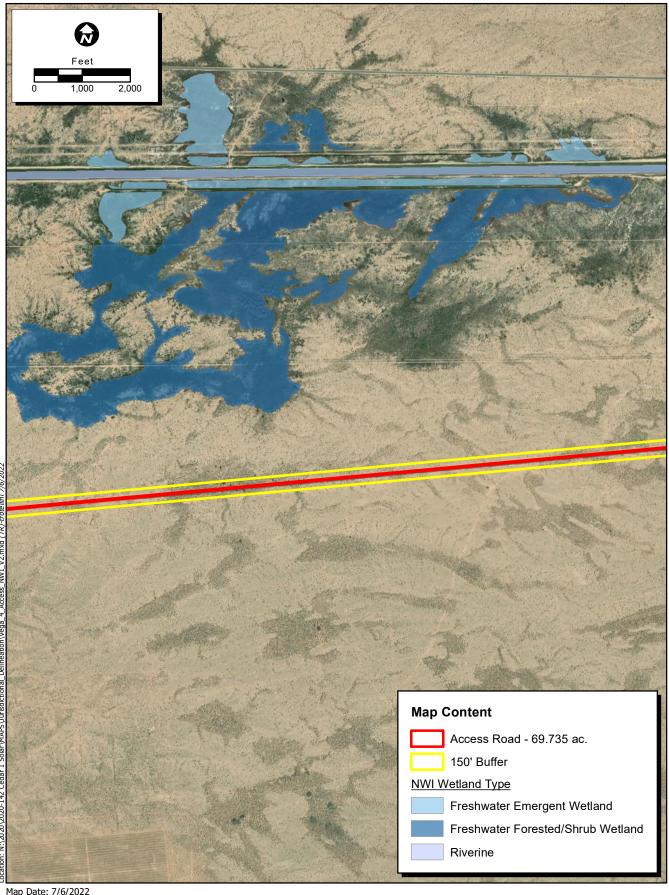






Figure 4. National Wetlands Inventory Sheet 3 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Me Community



Figure 4. National Wetlands Inventory Sheet 4 of 9

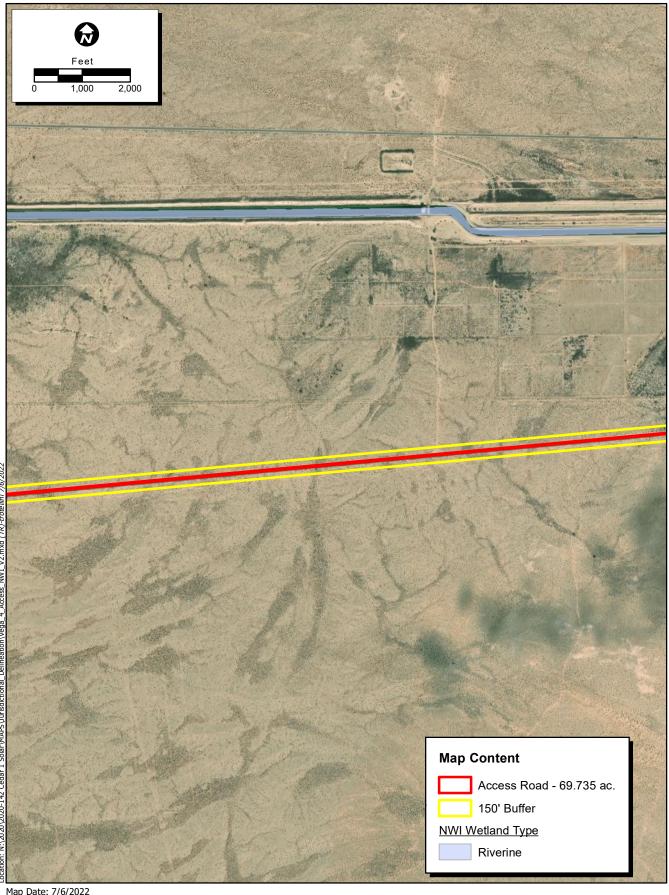
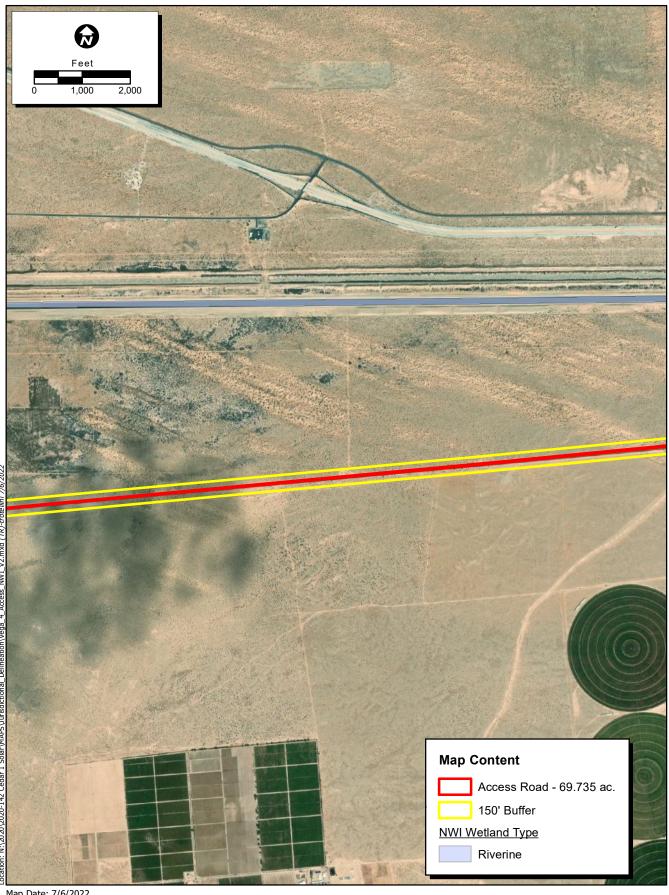






Figure 4. National Wetlands Inventory Sheet 5 of 9



Map Date: 7/6/2022 Service Layer Credits: Source: Earl, Maxar, Earlhstar Geographics, and the GIS User Community



Figure 4. National Wetlands Inventory Sheet 6 of 9

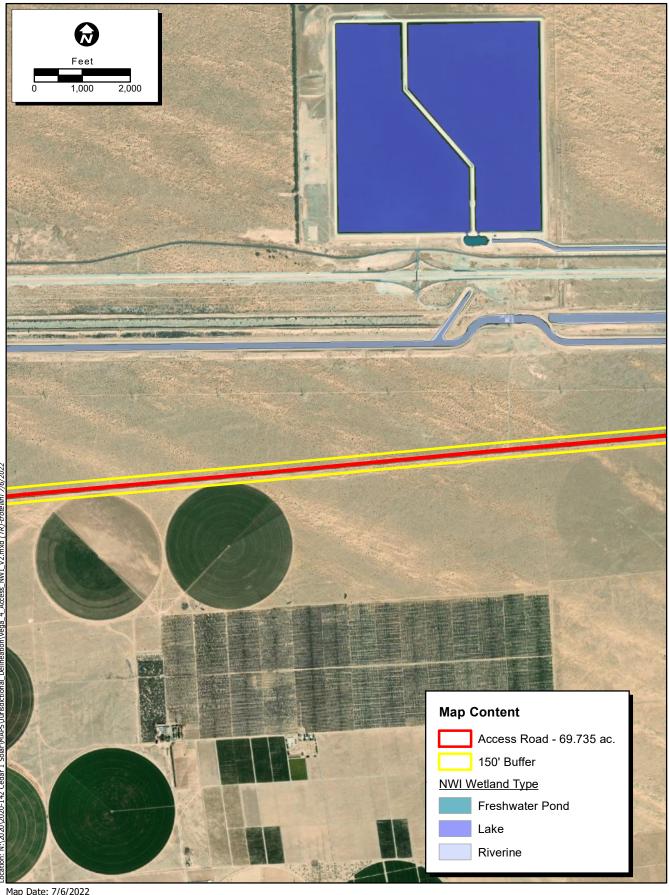






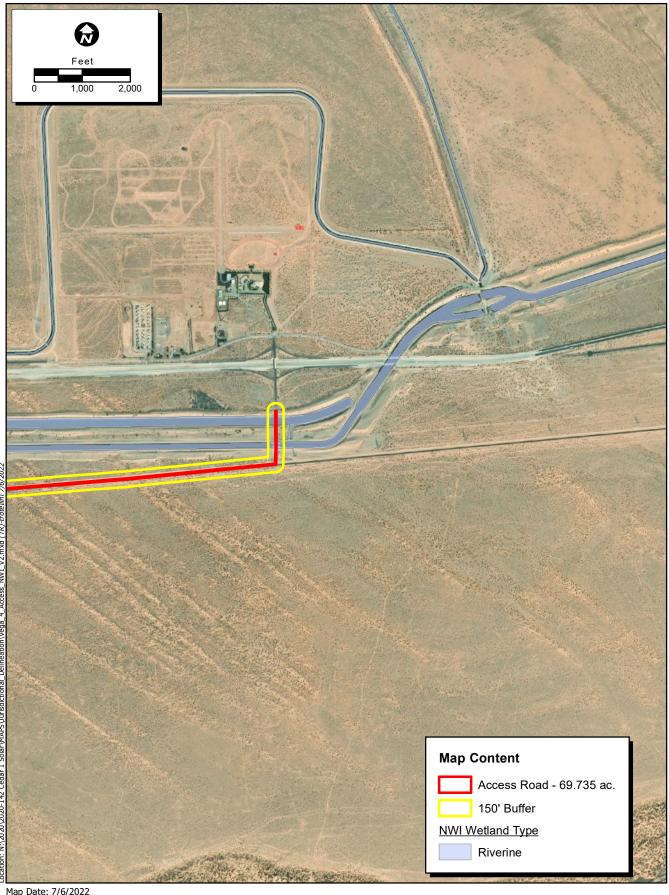
Figure 4. National Wetlands Inventory Sheet 7 of 9



Map Date: 7/6/2022 Service Layer Credits: Source: Esri, Maxar, Community



Figure 4. National Wetlands Inventory Sheet 8 of 9



Map Date: 7/6/2022
Service Layer Credits: Source: Esri, Ma



Figure 4. National Wetlands Inventory Sheet 9 of 9

4.1.4 Hydrology

The Study Area is within the Salton Sea watershed (Hydrologic Unit Code [HUC] #18100204) and within the Ash Main Canal-Alamo River (HUC-12 #181002040802), Gordons Well (HUC-12 #181002040402), and Grays Well (HUC-12 #181002040701) subwatersheds (NRCS, et al. 2022). The Study Area is downslope of the All-American Canal, which transports water from the Colorado River at the Imperial Dam and subsequently supplies it to the Imperial Valley through smaller lateral canals, all of which ultimately drain to the Salton Sea. The Salton Sea is a Traditional Navigable Water (TNW) per Section 404 of the CWA (USACE 2001).

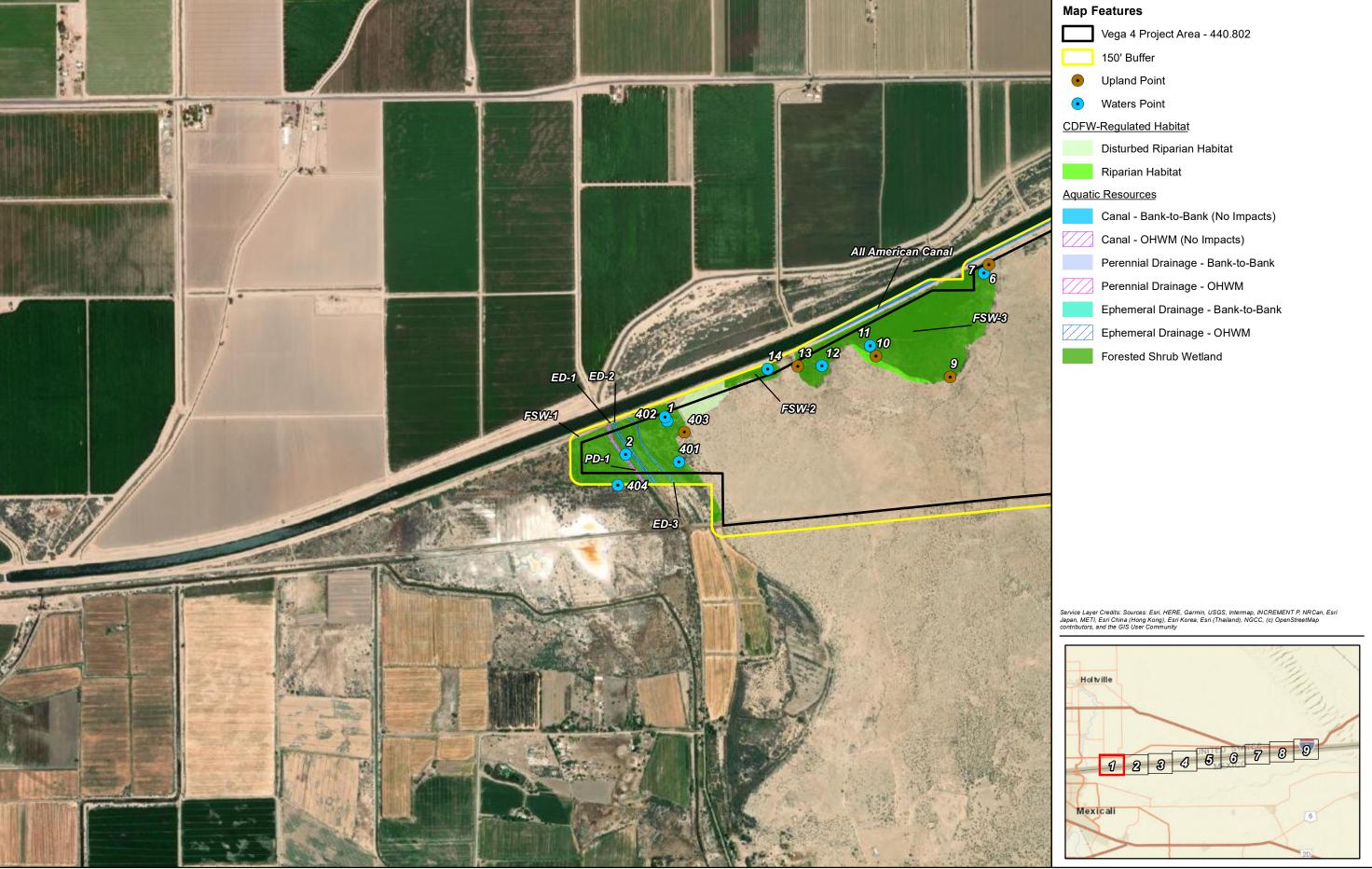
Runoff from adjacent agricultural land collects and is concentrated in the solar field portion of the Study Area. Runoff within the planned solar field generally flows south from the direction of the All-American Canal, toward the U.S.-Mexico border, and eventually drains into a playa located west of the Project. Manmade berms running north-south line ephemeral drainages present throughout the western portion of the planned solar field. The All-American Canal and groundwater seepage likely feed the drainages and wetlands present onsite. This historical system dates back as early as 1953 (Nationwide Environmental Title Research Online [NETROnline] 2022) and is possibly remnant of a historic lakebed belonging to Lake Cahuilla.

The access road runs parallel to the U.S./Mexico border and is heavily trafficked by U.S. Border Patrol vehicles. One large NWI-mapped wetland system is located approximately 0.25 mile north of the access road, and what appears to be a second wetland system is located approximately 0.10 miles north of the access road. Both wetland systems are assumed to be supported by overlapping NHD-mapped ephemeral streams (USGS 2022) and are possibly remnant of a historic lakebed belonging to Lake Cahuilla. Directly adjacent to the access road, there are two areas of riparian habitat that appear to be remnant wetlands based on the density of dead tamarisk and presence of arrow weed. Both remnant wetlands connect to what is assumed to be an active wetland located directly to the north, and it is likely these remnant wetlands were at one point fed by this active system. Both the active and remnant systems appear in historic aerials dating as far back as 1985 (NETROnline 2022).

4.2 Aquatic Resources

Aquatic resources have been mapped within the Study Area; these results are subject to agency verification. Aquatic resources that fall within the Project boundaries are summarized by feature in Table 5 and depicted on Figure 5.

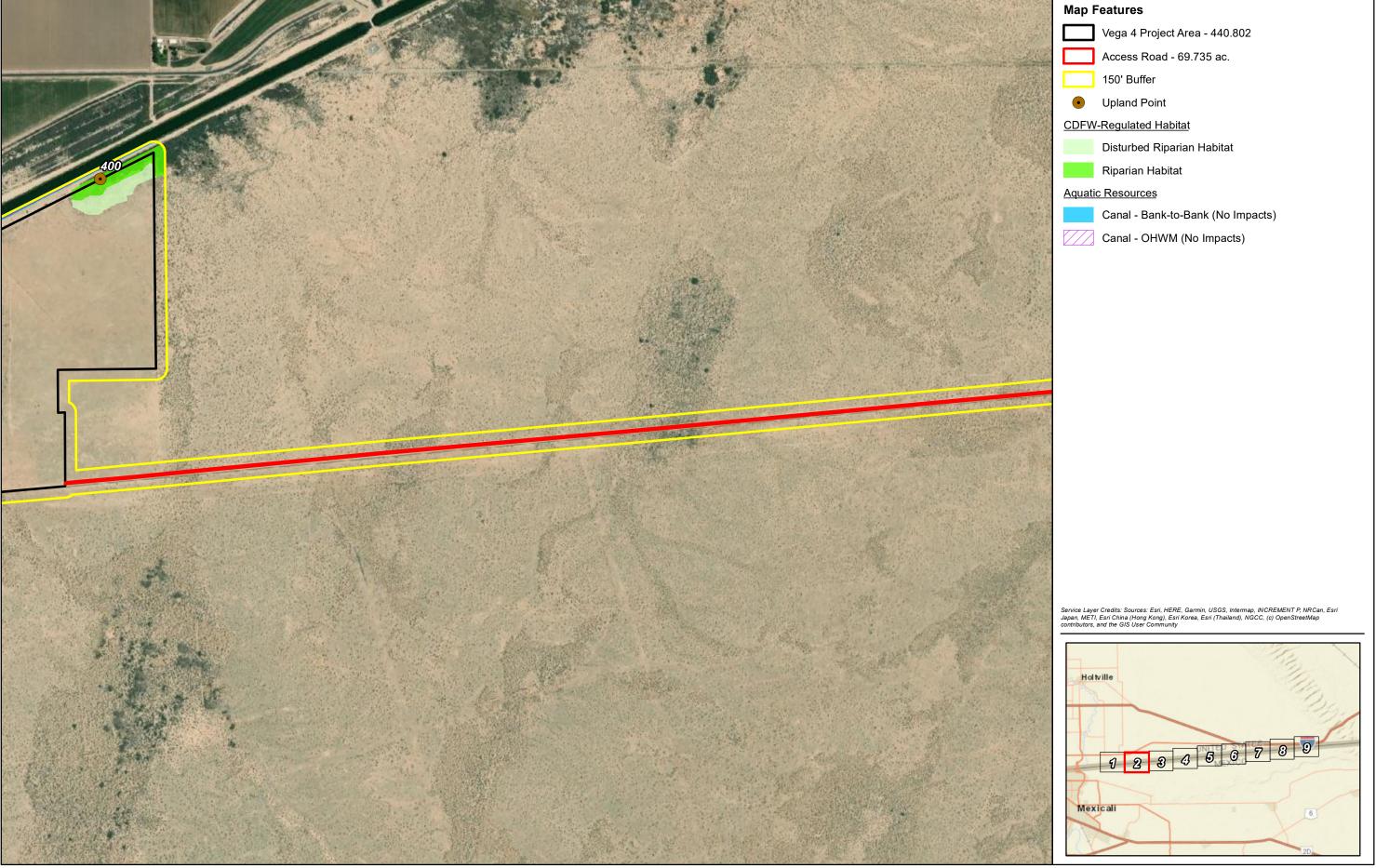
Features identified as an aquatic resource had wetland indicators present and/or physical evidence of flow including OHWM, defined bed and bank, presence of a clear and natural line impressed on the bank, the presence or absence of sediment deposits, litter/debris, and/or exposed roots indicating active hydrology within the channel. Associated riparian habitat identified within the Study Area consisted of hydrophytic vegetation and hydrological indicators but lacked hydric soil indicators. The OHWM and wetland determination data forms are included as Attachment B, representative site photographs are included as Attachment C, and the USACE Operations and Maintenance Business Information Link Regulatory Module (ORM) aquatic resources table is included as Attachment D.







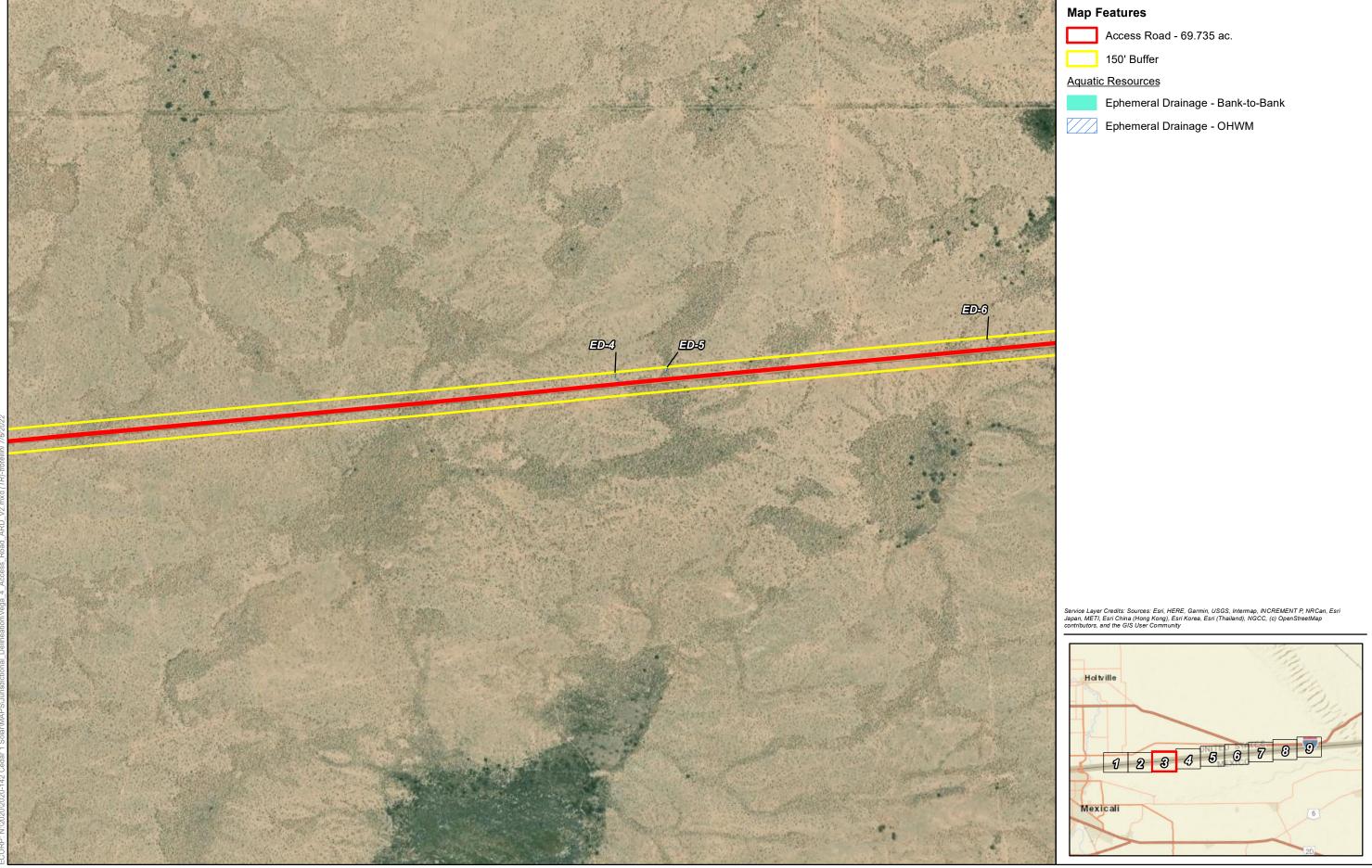








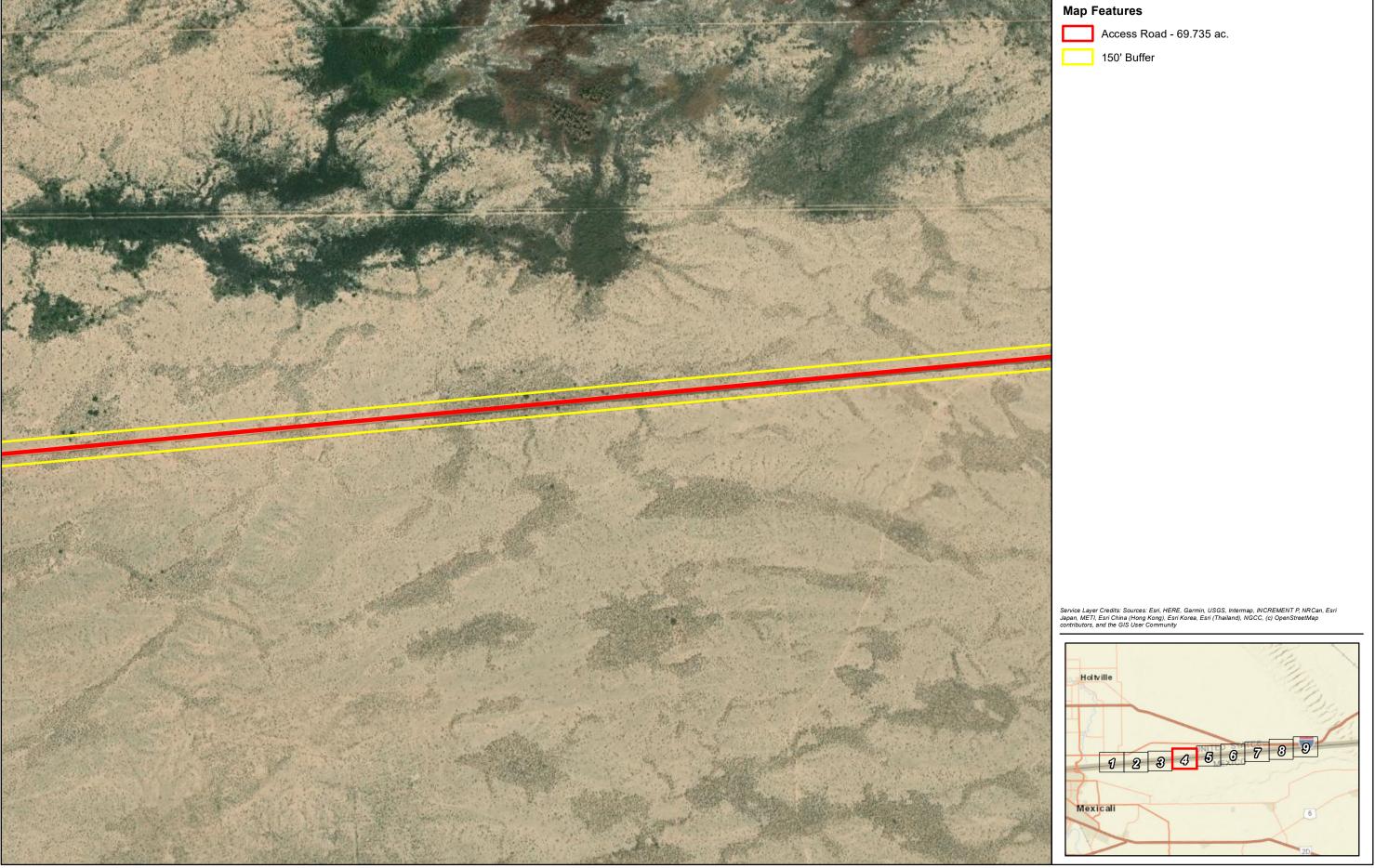








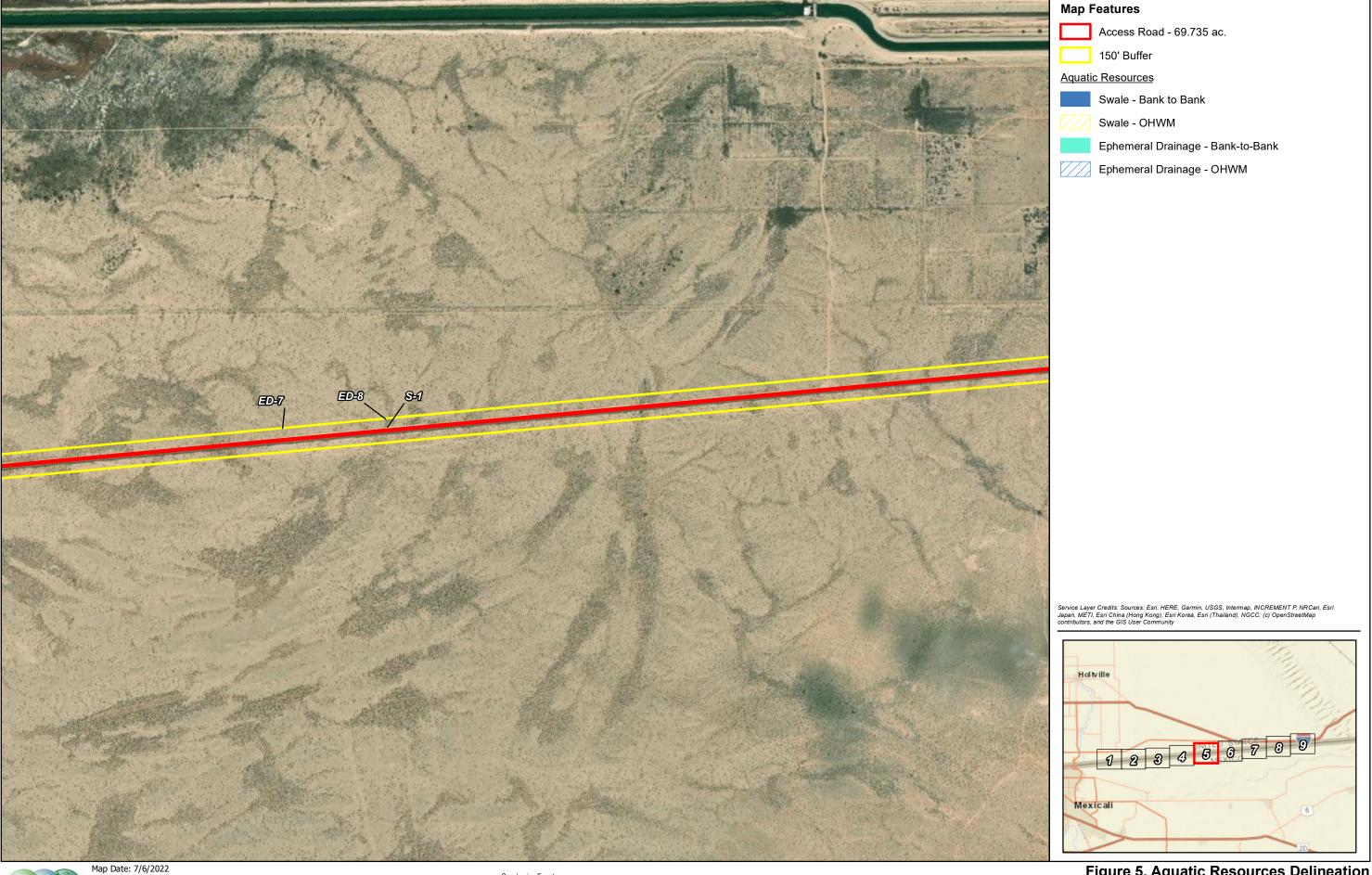








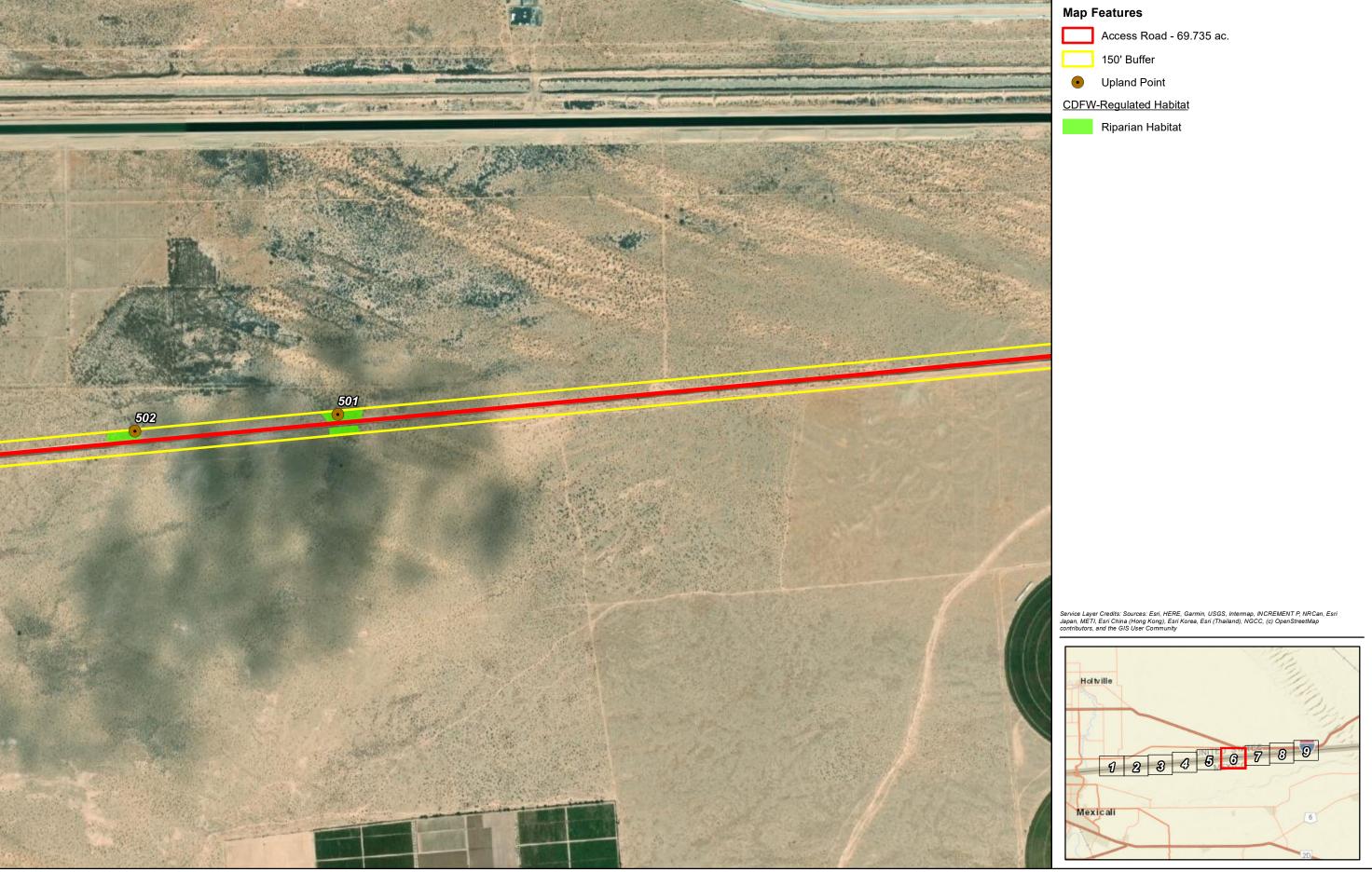








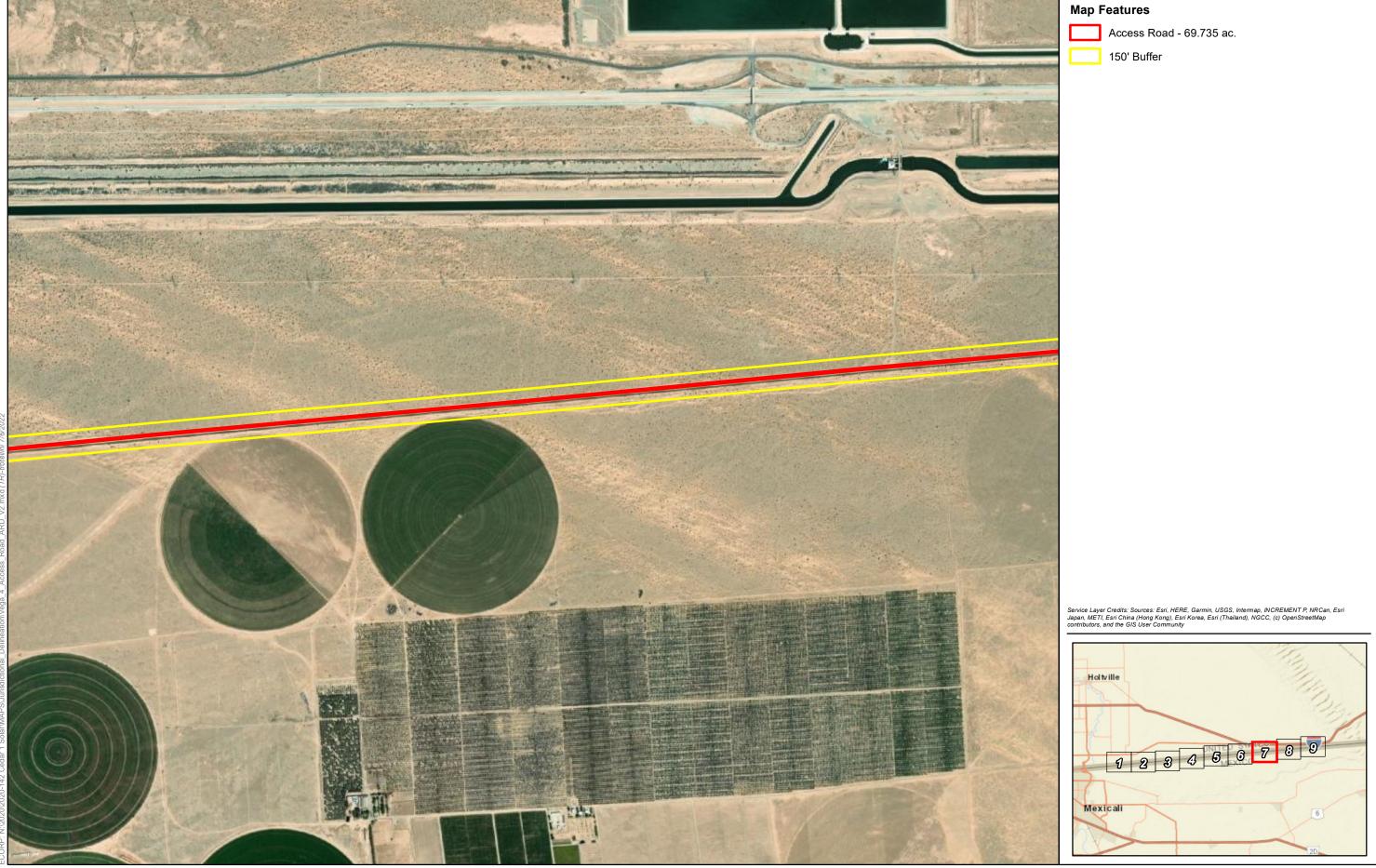








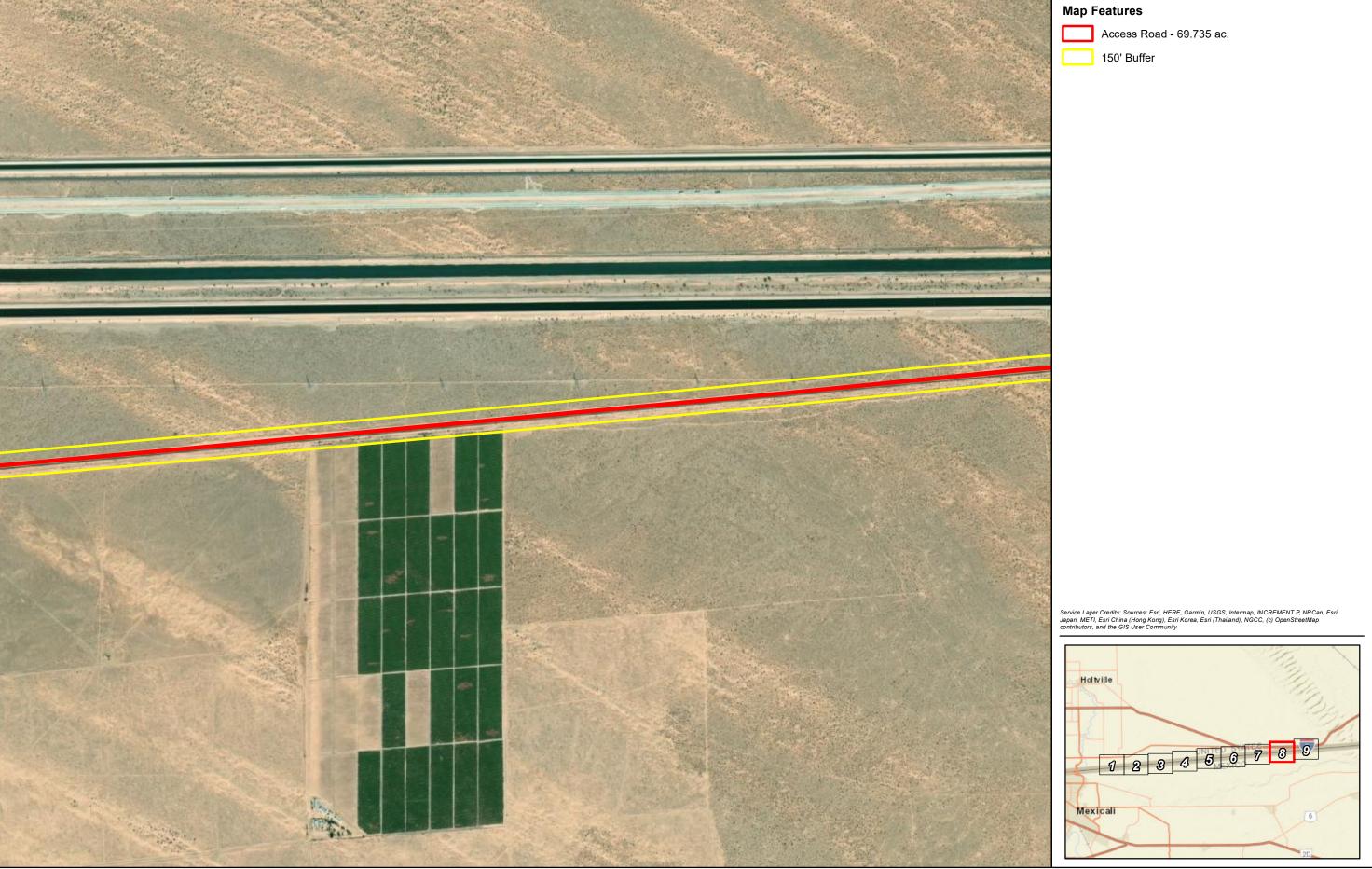


















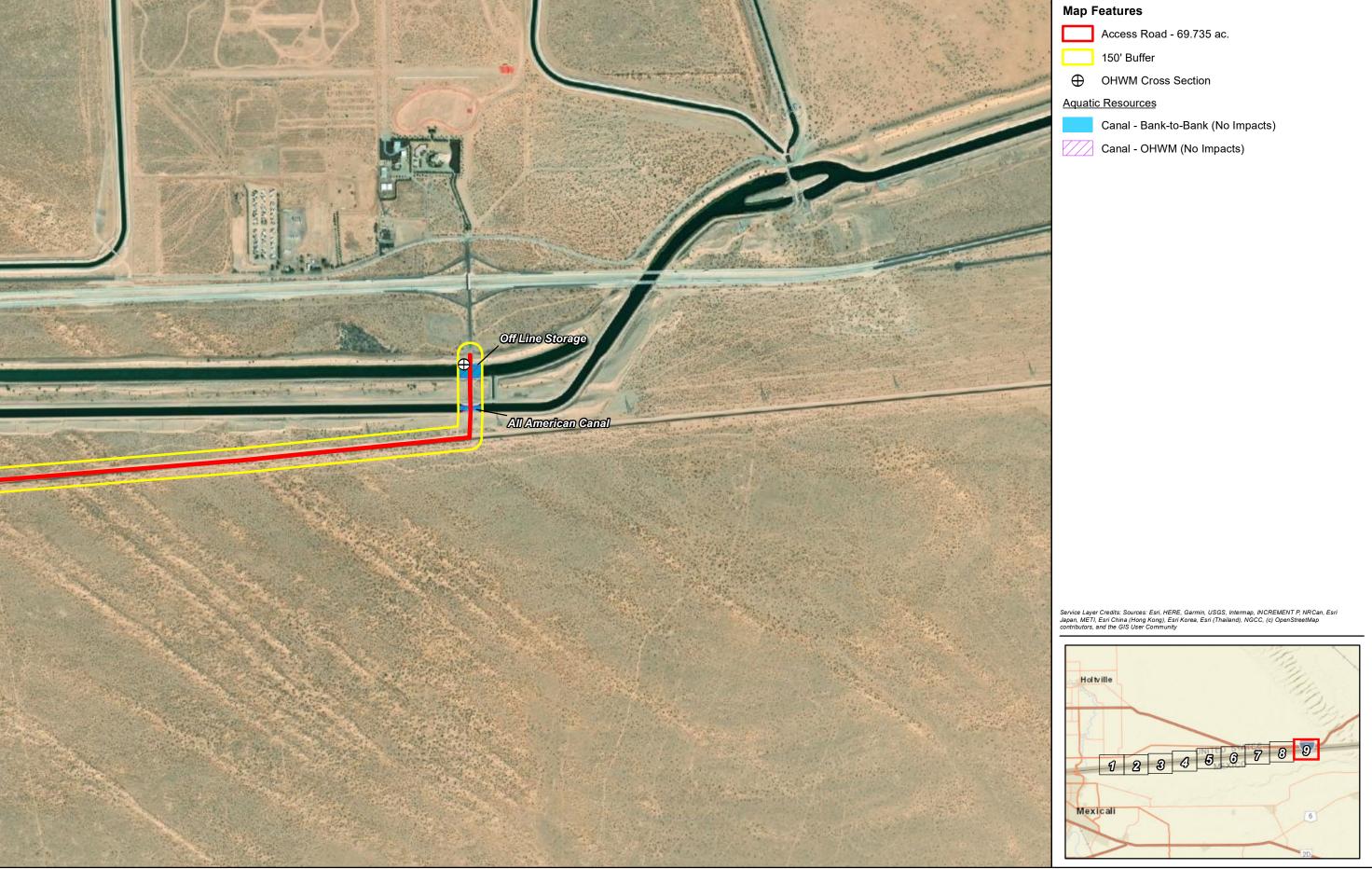








Table 5. Aquatic Resources within the Project

	•	Resources sification			WOTUS/	CDFW	Resource	Riparian
Resource Name ¹	Cowardin ²	Location (latitude, longitude)	OHWM/Wetland Presence Summary	Dominant Vegetation	WSC Size (acres) ³	Size (acres) ⁴	Size (linear feet)	Habitat Size (acres)
ED-1	R6	32.67954541, -115.31681051	OHWM indicators: defined bed and bank and vegetation matted down, bent, or absent.	Tamarisk Thickets	0.282	0.275	701.547	N/A
ED-2	R6	32.67977819, -115.31686094	OHWM indicators: defined bed and bank and vegetation matted down, bent, or absent.	Tamarisk Thickets	0.288	0.357	717.545	N/A
ED-3	R6	32.67983223, -115.31627266	OHWM indicators: defined bed and bank.	Tamarisk Thickets	0.231	0.415	806.879	N/A
FSW-1	PSS1C	32.67960789, -115.31829880	Wetland criteria met: hydrophytic vegetation present, hydric soils present, and hydrological indicators present.	Tamarisk Thickets	18.401	N/A	N/A	N/A
FSW-2	PSS1C	32.68345488, -115.31168036	Wetland criteria met: hydrophytic vegetation present, hydric soils present, and hydrological indicators present.	Tamarisk Thickets	0.372	N/A	N/A	N/A
FSW-3	PSS1C	32.68496608, -115.30521625	Wetland criteria met: hydrophytic vegetation present, hydric soils present, and hydrological indicators present.	Tamarisk Thickets	40.344	N/A	N/A	N/A
PD-1	R2AB3H	32.67989722, -115.31746236	Wetland criteria met within the channel with OHWM indicators; bisects wetland riparian habitat.	Tamarisk Thickets	0.343	0.687	664.876	2.527
Unassociated Riparian Habitat	N/A	32.68384969, -115.30666666	N/A	Arrow Weed and Tamarisk thickets	5.793	N/A	N/A	N/A
Unassociated Disturbed Riparian Habitat	N/A	32.69004265 -115.29438590	N/A	Disturbed Arrow Weed Thickets	N/A	N/A	N/A	5.696
All American Canal ⁵	R2UBHx	32.70397136 -114.95717380	N/A	Unvegetated	0.029	0.037	24.996	N/A
Off Line Storage ⁵	R2UBHx	32.70532216 -114.95718630	N/A	Unvegetated	0.086	0.115	24.971	N/A
Total:					66.169	1.886	2940.815	

^{1:} ED= Ephemeral Drainage, FSW= Freshwater Forested/Shrub Wetland, PD= Perennial Drainage.

^{2:} Cowardin Codes: (R6) Riverine, ephemeral; (PEM1C) Freshwater Emergent Wetland; (PSS1C) Freshwater Forested/Shrub Wetland; (R2AB3H) Riverine, lower perennial, aquatic bed, rooted vascular; (R2UBHx) Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded, Excavated (USFWS 2022b).
3: OHWM widths were used to estimate WOTUS (Waters of the U.S.) and WSC (Waters of the State of California) areas.

^{4:} Top- of-Bank widths were used to estimate CDFW acreages.

^{5:} Impacts to these features are not expected to occur, as features flow beneath access road entry bridge.

4.2.1 Wetlands

4.2.1.1 Freshwater Forested/Shrub Wetland

Freshwater forested/shrub wetlands (FSW) are dominated by woody vegetation such as true shrubs, young trees (saplings), and trees or shrubs that are stunted due to environmental conditions. They are seasonally flooded: therefore, surface water is present for extended periods, particularly in the early growing season, but is absent by the end of the growing season in most years. The water table can be variable after a flooding event, and ranges from saturation at the ground surface to a water table well below the ground surface (USFWS 2022a). There are three FSW within the Study Area (FSW-1, FSW-2, and FSW-3; Figure 5).

Sampling Points 1, 2, 401, 402, and 404 were collected in the freshwater forested/shrub wetland in the western portion of the solar field Study Area (FSW-1). Sampling Point 403 was collected outside the limits of FSW-1. At Sampling Point 402, plant species observed included tamarisk, willow baccharis, and arrow weed. Soils were determined to be hydric based on the presence of hydric soil indicators depleted below dark surface (A11) and redox depressions (F8). Wetland hydrology indicators observed at Sampling Point 402 included saturation (A3), drift deposits (B3), and oxidized rhizospheres along living roots (C3).

Sampling Point 14 was collected in the freshwater forested/shrub wetland in the northwestern portion of the solar field Study Area (FSW-2). Plant species observed within the wetland included tamarisk, arrow weed, and screwbean mesquite. Soils were determined to be hydric based on the presence of hydric soil indicator redox depressions (F8). Wetland hydrology indicators observed at Sampling Point 14 included sediment deposits (B2), drift deposits (B3), and water-stained leaves (B9).

Sampling Points 7, 11, and 12 were collected in the FSW in the northeastern portion of the solar field Study Area (FSW-3). Sampling Points 6, 9, 10, and 13 were collected outside the limits of FSW-3. At Sampling Point 7, plant species observed within the wetland included willow baccharis, arrow weed, and cattail. Soils were determined to be hydric based on the presence hydric soil indicator redox depressions (F8). Wetland hydrology indicators observed at Sampling Point 7 included saturation (A3) and waterstained leaves (B9).

4.2.2 Other Aquatic Resources

4.2.2.1 Perennial Drainage

Perennial drainages (PD) are linear features that exhibit a bed and bank and an OHWM. These features typically contain surface water flowing continuously year-round. OHWM indicators observed for the perennial drainage (PD-1) that occurs within the western portion of the Study Area included defined bed and bank, change in vegetation species, change in vegetation cover, and natural line impressed in bank. The existing hydrology of PD-1 supports emergent wetland habitat within the channel.

Sampling Point 2 was collected within the emergent wetland in the bed of PD-1. At Sampling Point 2, plant species observed within the drainage included tamarisk and cattail. Soils were determined to be hydric based on the presence of hydric soil indicators hydrogen sulfide (A4), loamy gleyed matrix (F2), and

redox depressions (F8). Wetland hydrology indicators observed at Sampling Point 2 included surface water (A1), high water table (A2), saturation (A3), and hydrogen sulfide odor (C1).

4.2.2.2 Ephemeral Drainage

Ephemeral drainages (ED) are linear features that exhibit a bed and bank and an OHWM. These features typically convey runoff for short periods of time, during and immediately following rain events, and are not influenced by groundwater sources at any time during the year. The solar field Study Area contains three ephemeral drainages within the western portion of the Project (ED-1, ED-2, and ED-3). These manmade drainages convey flow through the Study Area and into FEW-1. Additional ephemeral drainages exist within the buffer of the access road, but do not overlap with the Study Area.

No sampling points were collected within ephemeral features because soils and vegetation did not imply that wetlands could be present. Wetland hydrology indicators were present at these features, however, leading to the conclusion that they conveyed water irregularly.

4.2.3 Manmade Features

4.2.3.1 Main Canals

A total of two main canals managed by IID, the All-American Canal and the associated Off-line Storage Canal, were identified within the access road portion of the Study Area and are assumed to flow perennially. Both canals bisect the easternmost portion of the Study Area. The concrete-lined All-American Canal is maintained by IID in order to be free of vegetation for water conveyance efficiency. The Off-line Storage Canal is natural-bottomed, and flow and water levels are maintained by IID. The All-American Canal brings water from the Colorado River at the Imperial Dam and supplies it to the Imperial Valley through smaller lateral canals, all of which ultimately drain to the Salton Sea (IID 2022). Because these canals flow underneath the access road entry bridge, no impacts are expected to occur to either canal.

4.2.4 Associated Habitat

4.2.4.1 Riparian Habitat

Both riparian habitat and disturbed riparian habitat are present within the Study Area. They are associated with the floodplain adjacent to the wetlands and drainages throughout the Project. Topographically, these areas sit within a low point. Riparian habitat within the Study Area contains hydrophytic vegetation and hydrological indicators but lack hydric soil indicators, whereas disturbed riparian habitat is riparian habitat that has been previously altered. A total of 5.793 acres of riparian habitat and 8.223 acres of disturbed riparian habitat exists within the Study Area.

Sampling Point 10 was collected in riparian habitat located along FSW-3 within the northern portion of the solar field Study Area. Plant species observed included tamarisk, arrow weed, and alkali goldenbush. Hydric soil indicators were determined to be absent at this sampling point. Wetland hydrology indicators observed at Sampling Point 10 included sediment deposits (B2) and water-stained leaves (B9).

Sampling Point 400 was collected in riparian habitat located within the northeastern portion of the solar field Study Area. Plant species observed included tamarisk, arrow weed, and cattail. Hydric soil indicators were determined to be absent at this sampling point. Wetland hydrology indicators observed at Sampling Point 400 included high water table (A2), saturation (A3), and water marks (B1).

Sampling point 501 was collected in riparian habitat located within the northern buffer area of the access road Study Area. Plant species observed included tamarisk, arrow weed, creosote bush, and alkali goldenbush. Hydric soil indicators and wetland hydrology indicators were determined to be absent at this sampling point.

Sampling point 502 was collected in riparian habitat located within the northern buffer area of the access road Study Area. Plant species observed included tamarisk, arrow weed, and white bursage. Hydric soil indicators were determined to be absent at this sampling point. Wetland hydrology indicators present included surface soil cracks (B6).

5.0 JURISDICTIONAL ASSESSMENT

According to Regulatory Guidance Letter 16-01, an applicant may request a Preliminary Jurisdictional Delineation (PJD) "in order to move ahead expeditiously to obtain a Corps permit authorization where the requestor determines that it is in his or her best interest to do so... even where initial indications are that the aquatic resources on a parcel may not be jurisdictional" (USACE 2016). A significant nexus evaluation is not necessary to obtain a PJD. The following information on connectivity of wetlands and other waters in the Study Area to TNWs is provided should an Approved Jurisdictional Determination be necessary.

The perennial and ephemeral drainages within the Study Area appear to directly or indirectly (via sheet and/or subsurface flow) connect to adjacent wetlands to the west. The wetlands appear to be fed by the All-American Canal and groundwater seepage. The All-American Canal brings water from the Colorado River at the Imperial Dam and supplies it to the Imperial Valley through smaller lateral canals, all of which ultimately drain to the Salton Sea. The Salton Sea is considered TNW (USACE 2001). The wetlands, perennial drainage, and ephemeral drainages within the Study Area would likely be subject to regulation under Section 404 of the CWA. Ultimately, the jurisdictional determination will be made by the USACE. Regardless of federal jurisdiction status, all aquatic resources delineated on site, including riparian habitat, are subject to CDFW and/or RWQCB jurisdiction.

6.0 CONCLUSION

ECORP's mapping of aquatic resources in the Study Area are depicted on Figure 5. Acreages shown in Table 5 represent calculated estimates of the extent of aquatic resources within the Study Area and are subject to modification following USACE review and/or the verification process. Impacts to aquatic features may require permits from several regulatory agencies pursuant to federal and state laws. Wetlands, perennial drainages, and ephemeral drainages present within the Study Area would require a permit pursuant to Section 404 of the CWA (USACE), certification compliance with Section 401 of the CWA (RWQCB) and the Porter-Cologne Act (RWQCB), and a Lake or Streambed Alteration Agreement pursuant to California Fish and Game Code Section 1600 (CDFW). Impacts to any associated riparian habitat within

the aforementioned features are also subject to an agreement pursuant to California Fish and Game Code Sections 1600 and 1602 (CDFW).

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LIST OF ATTACHMENTS

Attachment A – Driving Directions to Study Area

Attachment B – OHWM and Wetland Determination Data Forms - Arid West

Attachment C – Representative Site Photographs

Attachment D – USACE ORM Aquatic Resources Table

Attachment E – Digital Data

ATTACHMENT A
Driving Directions to Study Area

Google Maps

Drive 235 miles

US Army Corps of Engineers 915 Wilshire Blvd, Los Angeles, CA 90017

Get on CA-110 N/Harbor Fwy from S Figueroa St

↑	1.	Head southeast on Wilshire Blvd toward S Figueroa St	mi
←	2.	Turn left at the 1st cross street onto S Figueroa S	
←	3.	Turn left at the 3rd cross street onto W 5th St	m
γľ	4.	Keep right at the fork, follow signs for Harbor Fwy/CA-110 N and merge onto CA-110 N/Harbo Fwy	
		0.2	m

1	5.	2 hr 2 min Merge onto CA-110 N/Harbor Fwy	(129
<i>></i>	6.	Take exit 24A toward I-5 S/I-10 E	0.5
,	7.	Use the left lane to merge onto US-101 S	0.5
٦	8.	Keep left to stay on US-101 S	45
Ý	9.	Keep left at the fork to continue on San Ber Fwy, follow signs for I-10 E/San Bernardino	— 1.2 nardi
•	10.	Continue onto I-10 E/San Bernardino Fwy	- 1.2
٦	11.	Keep left to stay on I-10 E	12.2
٦	12.	Keep left to stay on I-10 E	52.4
٦	13.	Keep left to stay on I-10 E	— 1.5
			59.7
>	14.	Keep right to continue on CA-86 S, follow s for Brawley/El Centro/865 Expy	signs

Follow CA-78, CA-111 S and I-8 E to Bonds Corner Rd. Take

exit	128	from	I-8	E

←	15.	30 min (3 Use the left 2 lanes to turn left onto CA-78	0.4 mi)
Ŋ	16.	Use any lane to turn sharply right to stay on 78	3.4 mi CA-
↑	17.	Continue onto CA-111 S	2.9 mi
r	18.	Take the exit onto I-8 E toward Yuma	14.3 mi
r	19.	Take exit 128 for Bonds Corner Rd	9.5 mi
			0.2 mi

Follow Bonds Corner Rd and CA-98 E to your destination

\rightarrow	20.	Turn right onto Bonds Corner Rd	10 min (8.6 mi)
←	21.	Turn left onto CA-98 E	5.4 mi
\rightarrow	22.	Turn right	3.1 mi
			299 ft

Holtville

California 92250

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

OHWM and Wetland Determination Data Forms – Arid West Region	эn

Project: Vega SES 4 Project Number: 2020-142	Date: 11/05/2020 Town: Holtville	Time: 0900-1030 State: CA
Stream: PD-1	Photo begin file#:	Photo end file#:
Investigator(s): C. Torres		
Y / N Do normal circumstances exist on the site?	Location Details: Sout of All-American Canal and	h of Salton Sea, directly south north of US -Mexico border.
Y ☐ / N ☑ Is the site significantly disturbed?	Projection: Coordinates:	Datum: NAD83
Potential anthropogenic influences on the channel syst Site priorly used for agriculture and has been previously dist collects and is concentrated in the Study Area. Manmade be palustrine wetland in western portion of site.	urbed/altered. Runoff from	
Brief site description: The Study Area is downslope of the All-American Canal, likely feeds into the site. Runoff generally flows south from toward the U.SMexico border		
Checklist of resources (if available):	ro doto	
✓ Aerial photography Dates: 1953, 1996-2016 (historic aerials); 11/2020 ✓ Topographic maps Stream gag Gage num Period of r	per:	
	ecord: y of recent effective disc	noraea
	s of flood frequency anal	•
	ecent shift-adjusted ratin	•
	neights for 2-, 5-, 10-, and	d 25-year events and the
	ecent event exceeding a	5-year event
Global positioning system (GPS)		
Other studies		
Hydrogeomorphic F	ioodplain Units	
Active Floodplain	Low Terrace	
Low-Flow Channels	/ / / OHWM Paleo Ch	annel
Procedure for identifying and characterizing the flood	plain units to assist in i	dentifying the OHWM:
1. Walk the channel and floodplain within the study area	to get an impression of tl	ne geomorphology and
vegetation present at the site. 2. Select a representative cross section across the channel.	Draw the cross section at	nd label the floodplain units
3. Determine a point on the cross section that is character		
a) Record the floodplain unit and GPS position.		,
b) Describe the sediment texture (using the Wentworth	class size) and the veget	ation characteristics of the
floodplain unit.		
c) Identify any indicators present at the location.		
4. Repeat for other points in different hydrogeomorphic f	=	
5. Identify the OHWM and record the indicators. Record Mapping on aerial photograph	the OHWM position via:	
Digitized on computer	Other:	
Li Digitizea dii compater	1	

Project ID: Vega SES 4 Cross section ID:	PD-1 Date: 11/05/2020 Time: 0900-1030
Tamarisic	Tamar
	Standing water
<u>OHWM</u>	
GPS point: 32.680595, -115.318096	
Indicators: ☐ Change in average sediment texture ☐ Change in vegetation species ☐ Change in vegetation cover	 ✓ Break in bank slope ✓ Other: Natural line Other:
Comments: Emergent wetland present within bed of drainage, and tamarisk.	nd standing water present. Vegetation included cattail and
Floodplain unit:	☐ Active Floodplain ☐ Low Terrace
Characteristics of the floodplain unit: Average sediment texture: Coarse silt Total veg cover: 70 % Tree: 5 % S Community successional stage: NA Early (herbaceous & seedlings)	Shrub: 65 % Herb: 0 % Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees)
Indicators: Mudcracks Ripples Drift and/or debris	Soil development Surface relief Other: Other:
Presence of bed and bankBenches	Other:
<u></u>	Other:

Project: Vega SES 4	Date: 11/05/2020	Time: 0900-1030
Project Number: 2020-142	Town: Holtville	State: CA
Stream: ED-1	Photo begin file#:	Photo end file#:
Investigator(s): C. Torres, J. Kendrick		
Y ☑ / N ☐ Do normal circumstances exist on the site?		h of Salton Sea, directly south d north of US -Mexico border
Y ☐ / N ☑ Is the site significantly disturbed?	Projection: Coordinates:	Datum: NAD83
Potential anthropogenic influences on the channel syst Site priorly used for agriculture and has been previously dist collects and is concentrated in the Study Area. Manmade be wetland in western portion of site. Brief site description: The Study Area is downslope of the All-American Canal, likely feeds into the site. Runoff generally flows south fro toward the U.SMexico border Checklist of resources (if available): Aerial photography Dates: 1953, 1996-2016 (historic aerials); 11/2020 Gage number	turbed/altered. Runoff from the drainages. Department of the drainages. Department of the drainages water from the direction of the department of the depart	m the Colorado River and
✓ Topographic maps Period of regree of	ecord: y of recent effective disc s of flood frequency ana ecent shift-adjusted ratir	lysis lysis d 25-year events and the
Hydrogeomorphic F	Toodplain Units	
Active Floodplain Low-Flow Channels	OHWM Paleo Ch	annel
Procedure for identifying and characterizing the flood	plain units to assist in i	identifying the OHWM:
 Walk the channel and floodplain within the study area to vegetation present at the site. Select a representative cross section across the channel. Determine a point on the cross section that is characteria. Record the floodplain unit and GPS position. Describe the sediment texture (using the Wentworth floodplain unit. Identify any indicators present at the location. Repeat for other points in different hydrogeomorphic floodplain the OHWM and record the indicators. Record of Mapping on aerial photograph 	Draw the cross section and istic of one of the hydrogolass size) and the veget loodplain units across the OHWM position via GPS	nd label the floodplain units. geomorphic floodplain units. tation characteristics of the e cross section.
Digitized on computer	Other:	

Project ID: Vega SES 4 Cross section ID: ED-\	Date: 11/05/2020 Time: 0900-1030
Avvow weed Avvow weed Tamovisk	Tamavisk Arrow weed Soil cracks along bank
<u>OHWM</u>	, J
GPS point: 32.680267, -115.317448	
Change in vegetation species Oth	ak in bank slope er: er:
Comments: Vegetated channel adjacent to a perennial drainage (with emerge one ephemeral drainage to the east. Vegetation within channel colline the channel.	
Floodplain unit:	ive Floodplain
GPS point: 32.680267, -115.317448	1
	% Herb: <u>0</u> % d (herbaceous, shrubs, saplings) e (herbaceous, shrubs, mature trees)
Ripples Sur Drift and/or debris Ott Presence of bed and bank Ott	l development face relief ner: ner:
Comments:	
Salt crust present, but likely from adjacent agricultural run-off. V channels/wetland.	Vater seems to flood over bank of channel to adjacent

Project: Vega SES 4	Date: 11/5/2020	Time: 0900-1030	
Project Number: 2020-142	Town: Holtville State: CA		
Stream: ED-2	Photo begin file#:	Photo end file#:	
Investigator(s): C. Torres, J. Kendrick Y ✓ / N ☐ Do normal circumstances exist on the site?	Location Details: South	n of Salton Sea, directly south of Allent to US -Mexico border	
Y ☐ / N ☑ Is the site significantly disturbed?	Projection: Coordinates:	Datum: NAD83	
Potential anthropogenic influences on the channel syst Site priorly used for agriculture and has been previously dist collects and is concentrated in the Study Area. Manmade be palustrine wetland in western portion of site.	turbed/altered. Runoff fro	m adjacent agricultural land rainage system within a	
Brief site description: The Study Area is downslope of the All-American Canal, likely feeds into the site. Runoff generally flows south from toward the U.SMexico border			
Checklist of resources (if available):			
✓ Aerial photography □ Stream gag Dates: 1953, 1996-2016 (historic aerials); 11/2020 Gage numl ✓ Topographic maps Period of r □ Geologic maps □ History ✓ Vegetation maps □ Results ✓ Soils maps □ Most r □ Rainfall/precipitation maps □ Gage h	ber: ecord: y of recent effective disc s of flood frequency anal ecent shift-adjusted ratin heights for 2-, 5-, 10-, an ecent event exceeding a	lysis g d 25-year events and the 5-year event	
Low-Flow Channels	OHWM Paleo Ch	annel	
Procedure for identifying and characterizing the flood	lplain units to assist iņ i	identifying the OHWM:	
 Walk the channel and floodplain within the study area vegetation present at the site. Select a representative cross section across the channel. Determine a point on the cross section that is character a) Record the floodplain unit and GPS position. Describe the sediment texture (using the Wentworth floodplain unit. Identify any indicators present at the location. Repeat for other points in different hydrogeomorphic for Identify the OHWM and record the indicators. Record 	Draw the cross section a istic of one of the hydrogen class size) and the vege loodplain units across the OHWM position via	nd label the floodplain units. geomorphic floodplain units. tation characteristics of the e cross section.	
☐ Mapping on aerial photograph ☑] GPS		
Digitized on computer	Other:		

Project ID: Vega SES 4 Cross section ID: ED	-2 Date: 11/05/2020 Time: 0900-1030
Aryow weed	Tamarisk
wheel	Awanenced
A YOU W	eed
<u>OHWM</u>	
GPS point: 32.680418, -115.317431	
Indicators: Change in average sediment texture Change in vegetation species Change in vegetation cover	✓ Break in bank slope◯ Other:◯ Other:
Comments:	
Vegetated channel adjacent to one channel to the east a and arrow weed. Man-made berms line the channel.	and one channel to the west. Vegetation consists of tamarisk
Fig. Julian weits 7 I Flow Channel	T A 22 to The state of Tarry Torress
Floodplain unit:	☐ Active Floodplain ☐ Low Terrace
GPS point: 32.680418, -115.317431	
Characteristics of the floodplain unit: Average sediment texture: Medium sand/sand Total veg cover: 70 % Tree: 10 % Shru Community successional stage: NA Early (herbaceous & seedlings)	b: 60 % Herb: 0 % Mid (herbaceous, shrubs, saplings) Late (herbaceous, shrubs, mature trees)
Indicators: Mudcracks Ripples Drift and/or debris Presence of bed and bank Benches	Soil development Surface relief Other: Other: Other:
Comments:	
Salt crust present, but likely from adjacent agricultural r channels/wetland.	un-off. Water seems to flood over bank of channel to adjacent

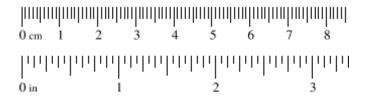
Project: Vega SES 4	Date: 11/05/2020	Time: 0900-1030		
Project Number: 2020-142	Town: Holtville	State: CA		
Stream: ED-3	Photo begin file#:	Photo end file#:		
Investigator(s): C. Torres, J. Kendrick	г			
Y / N Do normal circumstances exist on the site?	Location Details: South of All-American Canal and	h of Salton Sea, directly south north of US -Mexico border		
Y ☐ / N ☑ Is the site significantly disturbed?	Projection: Coordinates:	Datum: NAD83		
Potential anthropogenic influences on the channel system Site priorly used for agriculture and has been previously distinguished and is concentrated in the Study Area. Manmade begalustrine wetland in western portion of site.	urbed/altered. Runoff fror	-		
Brief site description: The Study Area is downslope of the All-American Canal, likely feeds into the site. Runoff generally flows south from toward the U.SMexico border	_			
Checklist of resources (if available):				
Aerial photography Dates: 1953, 1996-2016 (historic aerials); 11/2020 Gage numl Topographic maps Period of r	ber:			
Geologic maps Histor:	y of recent effective disch	narges		
	s of flood frequency analy			
✓ Soils maps	ecent shift-adjusted rating	_		
Rainfall/precipitation maps Gage h	neights for 2-, 5-, 10-, and	•		
	ecent event exceeding a 5	5-year event		
Global positioning system (GPS)				
Other studies				
Hydrogeomorphic F	Toodplain Units			
, Active Floodplain	, Low Terrace	. 1		
Low-Flow Channels	OHWM Paleo Cha	annel		
Procedure for identifying and characterizing the flood	plain units to assist in ic	dentifying the OHWM:		
1. Walk the channel and floodplain within the study area vegetation present at the site.	to get an impression of th	ne geomorphology and		
2. Select a representative cross section across the channel.3. Determine a point on the cross section that is character a) Record the floodplain unit and GPS position.				
b) Describe the sediment texture (using the Wentworth floodplain unit.	class size) and the vegeta	ation characteristics of the		
c) Identify any indicators present at the location.				
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.				
5. Identify the OHWM and record the indicators. Record	the OHWM position via:			
☐ Mapping on aerial photograph ✓	GPS			
Digitized on computer	Other:			

Project ID: Vega SES 4 Cross section ID: E	D-3 Date: 11/05/2020 Time: 0900-1030
Cross section drawing:	ANOW weed Why M
CVCOSOFE	Arrow weed
AYYOWWeed	
OHWM	OHWM
(1/2	W NE WAY
Cread N	erb låter)
<u>OHWM</u>	
GPS point: 32.680503, -115.317320	
Indicators:	
Change in average sediment texture Change in vegetation species	✓ Break in bank slope Other
✓ Change in vegetation species	☐ Other: Other:
Comments:	
Vegetated channel adjacent to another channel to the OHWM was slight.	ne west. Vegetation consists of arrow weed within the channel.
Offwiri was slight.	
Floodplain unit:	☐ Active Floodplain ☐ Low Terrace
GPS point: 32.680503, -115.317320	
Characteristics of the floodplain unit:	
Average sediment texture: Medium sand/sand	10 0/ 77 1 17 0/
Total veg cover: <u>35</u> % Tree: <u>0</u> % Shr Community successional stage:	rub: <u>18</u> % Herb: <u>17</u> %
□ NA	Mid (herbaceous, shrubs, saplings)
☐ Early (herbaceous & seedlings)	✓ Late (herbaceous, shrubs, mature trees)
Indicators:	
Mudcracks	☐ Soil development ☐ Surface relief
Ripples Drift and/or debris	✓ Other: Change in vegetation cover
Presence of bed and bank	Other:
Benches	Other:
Comments:	

Tita West Epitemeral and Internit	tent bireams On Wi	VI Datasiicci
Project: Vega SES 4	Date: 4/12/2022	Time: 0900
Project Number: 2020-142	Town: Holtville	State: CA
•		
Stream: Offline Storage canal for All-American Canal	Photo begin file#:	Photo end file#:
Investigator(s): C. Torres, C. Garcia		
	Location Details: Offlin	e storage canal, serving as a
Y X / N Do normal circumstances exist on the site?	tributary to the All-America	
$Y \square / N \boxtimes$ Is the site significantly disturbed?	Projection:	Datum:
	Coordinates:	
Potential anthropogenic influences on the channel syst	tem:	
Trash and dumping. Canal is managed by IID, including flow.		
Trash and damping. Canar is managed by 11D, including now.		
Brief site description:		
Natural-bottomed storage canal serving as a tributary to the	All-American Canal located	d directly south. Both canals
run parallel to the U.S./Mexico border. Cross-section taken a		
Tuil parallel to the O.S./Mexico bolder. Closs-section taken a	it the Goldon wen Road of	idge crossing.
Checklist of resources (if available):		
X Aerial photography ☐ Stream gag	re data	
Topographic maps Period of r	ecord:	
Geologic maps History	y of recent effective disch	arges
	s of flood frequency analy	=
	ecent shift-adjusted rating	
	5	
	neights for 2-, 5-, 10-, and	•
Existing delineation(s) for site most r	ecent event exceeding a 5	5-year event
Solution Global positioning system (GPS)		
Other studies		
Hydrogeomorphic F	Floodplain Units	
Antino Flandalain	Law Tarraga	
Active Floodplain	Low Terrace	-
		©
		1 40
	4	
	/ /	
Low-Flow Channels	/ / OHWM Paleo Cha	annol
Low-Flow Chamleis	OHWW Faleo Cha	ime
Procedure for identifying and characterizing the flood	lplain units to assist in id	lentifying the OHWM:
	_	•
1. Walk the channel and floodplain within the study area	to get an impression of the	e geomorphology and
vegetation present at the site.		
2. Select a representative cross section across the channel.	Draw the cross section and	d label the floodplain units.
3. Determine a point on the cross section that is character		
	istic of one of the flydrog.	comorpine noodpium umis.
a) Record the floodplain unit and GPS position.		
b) Describe the sediment texture (using the Wentworth	class size) and the vegeta	ation characteristics of the
floodplain unit.		
c) Identify any indicators present at the location.		
	loodplain units sames the	cross saction
4. Repeat for other points in different hydrogeomorphic f		CIOSS SECTION.
5. Identify the OHWM and record the indicators. Record	-	
\square Mapping on aerial photograph \overline{X}] GPS	
Digitized on computer	Other:	

Wentworth Size Classes

Wellt Worth Size Classes								
Inches	Inches (in)			Millimeters (mm)			Wentworth size clas	ss
1	0.08	_	_	_	256		Boulder	<u>-</u>
	2.56	-	_	_	64		Cobble — — -	Gravel
	0.157	_	_	_	4		Pebble	G
	0.079	_		_	2.00			
	0.039	-	_	-	1.00		Very coarse sand Coarse sand	
	0.020	_	_	_	0.50			þ
1/2	0.0098	_	_	_	0.25		Medium sand	Sand
1/4	0.005	-	_	_	0.125		Fine sand	
1/8 —	0.0025			_	0.0625		Very fine sand	
1/16	0.0012	_	_	_	0.031		Coarse silt	
1/32	0.00061	_	_	_	0.0156		Medium silt	Silt
1/64	0.00031	-	_	-	0.0078		Fine silt Very fine silt	
1/128 —	0.00015	-		_	0.0039		very fine sit	
							Clay	Mud



Cross section drawing: DIC CAN MEL ALB water **OHWM GPS point:** 32.705570, -114.957454 **Indicators:** |X| Change in average sediment texture X Break in bank slope Other: see comments Change in vegetation species Change in vegetation cover Other: **Comments:** Additional OHWM indicators: shelving, natural line, scour, wracking, drift/debris, benches, ripples. OHWM width= 150' B2B width= 200' X Active Floodplain Floodplain unit: Low-Flow Channel Low Terrace **GPS point:** 32.705570, -114.957454 **Characteristics of the floodplain unit:** Average sediment texture: Fine sand Total veg cover: 3 % Tree: % Shrub: 1 % Herb: 2 % Community successional stage: NA Mid (herbaceous, shrubs, saplings) X Early (herbaceous & seedlings) Late (herbaceous, shrubs, mature trees) **Indicators:** Mudcracks Soil development X Ripples Surface relief X Drift and/or debris Other: _____ X Presence of bed and bank Other: _____ X Benches Other: **Comments:**

Cross section ID: Offline Storage

Time: 0900

Date: 4/12/22

Project ID: 2020-142

Project/Site: Vega SES 4	(City/County	: Holtville,	/ Imperial County	/ Sampli	ing Date: _	11/4/	2020
Applicant/Owner: zGlobal, Inc.				State:C	A Sampli	ng Point: _	1	
Investigator(s): <u>C. Congedo, C. Torres</u>	;	Section, To	wnship, Ra	nge: <u>S10, T17S, R</u>	16E			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave,	convex, none): Cor	ncave	Slop	e (%): _	10
Subregion (LRR): D								
Soil Map Unit Name: Rositas sand, 2 to 5 percent slopes				NWI cl				
Are climatic / hydrologic conditions on the site typical for this t			_					
Are Vegetation, Soil, or Hydrology sig				'Normal Circumstan		_	, No	
Are Vegetation, Soil, or Hydrology nat				eeded, explain any a				
SUMMARY OF FINDINGS - Attach site map s			g point l	ocations, trans	ects, impo	ortant fea	atures	, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No No Remarks:			e Sampled in a Wetlar		. <u>√</u> N	0		
Point taken within tamarisk thickets, downsloadl-American Canal.	ope (sou	uth) of a	hard-pa	cked dirt road	that runs p	oarallel t	o the	
VEGETATION – Use scientific names of plants								
		Dominant Species?		Dominance Test				
1. Tamarix sp.				Number of Domin That Are OBL, FA		1		(A)
2				Total Number of I	Dominant			
3				Species Across A		1		(B)
4		·	·	Percent of Domin	ant Species			
Sapling/Shrub Stratum (Plot size: 30')	5	= Total Co	ver	That Are OBL, FA		100)	(A/B)
1. Pluchea sericea	20	Х	FACW	Prevalence Inde	x worksheet:			
2. Baccharis salicina				Total % Cove	er of:	Multiply	by:	_
3.) ;			
4				FACW species 2	22 :	x 2 =	44	_
5				FAC species	5	x 3 =	15	_
	22	= Total Co	ver	FACU species (_
Herb Stratum (Plot size:)				UPL species (0	x 5 =	0	-
1				Column Totals: _	27 (A)	59	_ (B)
2				Prevalence	Index = B/A =	= 2.1	19	
3				Hydrophytic Veg				
4.				✓ Dominance T				
6				✓ Prevalence In	ndex is ≤3.0 ¹			
7					al Adaptations			ing
8.					emarks or on a	•	,	
		= Total Co	ver	Problematic I	Hydrophytic V	egetation' (Explain	1)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hyd be present, unles				ust
2		= Total Co		Hydrophytic				
% Bare Ground in Herb Stratum 73 % Cover of				Vegetation Present?	Yes <u>√</u>	No		
Remarks:				1				

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirm	n the absence	of indicators.)
Depth	Matrix			x Feature	-			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-0.2	10YR 4/3	100					Loam	Organic material
0.2-2	10YR 5/4	100					Loam	Clayey layer
2-5	10YR 4/4	95	5YR 5/6	5	С	PL, Na	Sandy lo ■	
5-13+	10YR 5/4	97	2.5YR 5/6	3	С	PL	Sand	
		· ——		· -	-			
1							. 2.	
			=Reduced Matrix, CS LRRs, unless other			d Sand Gr		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol		able to all	Sandy Redo		ieu.)			Muck (A9) (LRR C)
	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
	Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18)							
	en Sulfide (A4)		Loamy Gley	-			Red P	arent Material (TF2)
	d Layers (A5) (LRR (S)	Depleted M	, ,			Other	(Explain in Remarks)
	ick (A9) (LRR D)	(* 4 4)	Redox Dark		` '			
-	d Below Dark Surfac ark Surface (A12)	e (A11)	Depleted Da ✓ Redox Depr				3Indicators	of hydrophytic vegetation and
	fucky Mineral (S1)		Vernal Pool		(10)			hydrology must be present,
-	Gleyed Matrix (S4)			o (. o)				listurbed or problematic.
-	Layer (if present):							•
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes <u>√</u> No
Remarks:								
HYDROLO	GY							
	drology Indicators:							
_			d; check all that apply	v)			Secon	ndary Indicators (2 or more required)
Surface		ric require	Salt Crust					Vater Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus	` '				sediment Deposits (B2) (Riverine)
Saturation			Aquatic Inv		es (B13)			prift Deposits (B3) (Riverine)
	larks (B1) (Nonriver	ine)	Hydrogen					Prainage Patterns (B10)
	nt Deposits (B2) (No					Living Roc		Pry-Season Water Table (C2)
	oosits (B3) (Nonrive		Presence					crayfish Burrows (C8)
✓ Surface	Soil Cracks (B6)		Recent Iro	n Reduct	ion in Tilled	d Soils (C6	6) S	aturation Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial I	magery (B	7) Thin Muck	Surface	(C7)		S	hallow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Exp	lain in R	emarks)		F	AC-Neutral Test (D5)
Field Obser								
Surface Wat			No <u>✓</u> Depth (inc					
Water Table			No <u>✓</u> Depth (inc					
Saturation P		es <u>√</u>	No Depth (inc	ches): <u>0</u>		_ Wetl	and Hydrolog	y Present? Yes No
(includes car Describe Re		gauge. m	onitoring well, aerial p	photos. n	revious ins	pections)	if available:	
2 3 3 3 1 1 3	50. 404 Data (51. 54	990,	omenig men, deman	σστσσ, μ		p = = = = = ,		
Remarks:								
	but could be f	rom sa	cicultural rua at	÷.				
Sait Crust	, but could be t	rom agi	ricultural run-of	1.				

Project/Site: Vega SES 4		City/County:	Holtville	/ Imperial County	Sampling Date	e: <u>11/4/2020</u>
Applicant/Owner: zGlobal, Inc.				State: CA	Sampling Poin	nt:2
Investigator(s): <u>C. Congedo, C. Torres</u>		Section, Tov	wnship, Ra	nge: <u>S10, T17S, R16E</u>		
Landform (hillslope, terrace, etc.): Channel		Local relief	(concave,	convex, none): Concave		Slope (%): <u>25</u>
Subregion (LRR): D						
Soil Map Unit Name: Vint loamy very fine sand, wet						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrologys	-			'Normal Circumstances"		√ No
Are Vegetation, Soil, or Hydrology n				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site map				-		
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes ✓ N Yes ✓ N N N	0		e Sampled in a Wetlai		′ No	
Point taken within emergent wetland in th	e bed of	a draina	ge.			
VEGETATION – Use scientific names of plan						
Tree Stratum (Plot size: 10')		Dominant Species?		Dominance Test work		
1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,		1 (A)
2				Total Number of Domir	nant	
3				Species Across All Stra		1 (B)
4				Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size: 10')	5	= Total Cov	/er	That Are OBL, FACW,		100 (A/B)
1. Typha sp.	65	x	OBL	Prevalence Index wor	ksheet:	
2				Total % Cover of:		tiply by:
3.					x 1 =	
4.				FACW species 0		
5.				FAC species 5		
		= Total Cov	/er	FACU species 0	x 4 =	0
Herb Stratum (Plot size:)				UPL species 0	x 5 =	0
1				Column Totals:7	0 (A) _	80 (B)
2				Prevalence Index	r = B/A =	1.14
3				Hydrophytic Vegetati	·	
5.				✓ Dominance Test is		
6.				✓ Prevalence Index		
7.				Morphological Ada	ptations¹ (Provi	de supporting
8.				data in Remark	•	,
		= Total Cov	/er	Problematic Hydro	phytic Vegetation	on' (Explain)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric so be present, unless dist		
2		= Total Cov	·or	Hydrophytic		
% Bare Ground in Herb Stratum35 % Cover		='		Vegetation	es✓_No	
Remarks:	J. DIOIIO O				140	

	Color (moist)	%	Color (moist)	%	es Type ¹	Loc ²	Texture	Remarks
0-1	10YR 2/2	100				-		Organic material- muck (greasy)
1-6	10YR 6/2	92	Gley 1, 2.5/N	3		М	Loam	Iron manganese masses
1-6			5YR 5/8	5	_	PL, M		
6-13+	Glov 1 E/N	70	<u> </u>			1 L, 141	Silty clay	
0-15+	Gley 1, 5/N	70	-				Silty clay	
	Gley 1, 4/N	30				-	Silty clay	
			-			<u> </u>		
			=Reduced Matrix, C			ed Sand Gr		ation: PL=Pore Lining, M=Matrix.
		cable to all	LRRs, unless other		oted.)			for Problematic Hydric Soils ³ :
Histosol			Sandy Red					Muck (A9) (LRR C)
	pipedon (A2) istic (A3)		Stripped M Loamy Mu					Muck (A10) (LRR B) ed Vertic (F18)
	en Sulfide (A4)		Loamy Gle	-				arent Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M	-				Explain in Remarks)
	uck (A9) (LRR D)	,	Redox Dar					
Deplete	d Below Dark Surfa	ce (A11)	Depleted D	ark Surfa	ace (F7)			
	ark Surface (A12)		✓ Redox Dep		(F8)			of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ls (F9)				hydrology must be present,
	Gleyed Matrix (S4) Layer (if present):						uniess a	isturbed or problematic.
	Layer (ii present).							
	iches):						Hydric Soil	Present? Yes √ No
Remarks:							yano con	- 1000iiii
HYDROLO)GY							
	drology Indicators	5 :						
Primary Indi	cators (minimum of	one require	d; check all that app	ly)			Secor	idary Indicators (2 or more required)
✓ Surface	•	•	Salt Crust	•				/ater Marks (B1) (Riverine)
· 	ater Table (A2)		Biotic Cru	, ,				ediment Deposits (B2) (Riverine)
✓ Saturati	on (A3)		Aquatic Ir	vertebrat	tes (B13)		D	rift Deposits (B3) (Riverine)
Water M	Marks (B1) (Nonrive	erine)	✓ Hydrogen	Sulfide C	Odor (C1)		D	rainage Patterns (B10)
·	nt Deposits (B2) (N	onriverine)	Oxidized	Dh:h	area alana			
	posits (B3) (Nonriv				-	Living Roc	· · · —	ry-Season Water Table (C2)
	Surface Soil Cracks (B6) Recent Iron Reduction in Tilled Soils (C				ced Iron (C	(4)	c	rayfish Burrows (C8)
Surface	Soil Cracks (B6)	•	Presence Recent Iro	of Reduc	ced Iron (C	(4)	C S	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Surface	Soil Cracks (B6) ion Visible on Aeria	Imagery (B	Presence Recent Iro Thin Mucl	of Reduc on Reduc c Surface	ced Iron (C tion in Tille (C7)	(4)	C S S	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Surface Inundati Water-S	Soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9)	Imagery (B	Presence Recent Iro	of Reduc on Reduc c Surface	ced Iron (C tion in Tille (C7)	(4)	C S S	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9)
Surface Inundati Water-S	Soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations:	Imagery (B	Presence Recent Iro Thin Mucl Other (Ex	of Reduction Red	ced Iron (C tion in Tille (C7) Remarks)	(4)	C S S	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Surface Inundati Water-S Field Obser Surface Wat	Soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present?	Imagery (B	Presence Recent Iro Thin Mucl Other (Ex	of Reduction Red	ced Iron (C tion in Tille (C7) Remarks)	(4)	C S S	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Surface Inundati Water-S Field Obser Surface Wat Water Table	e Soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present?	Yes <u>√</u>	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tion in Tille (C7) Remarks)	ed Soils (C6	C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	soil Cracks (B6) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? Present? pillary fringe)	Yes _ ✓ Yes _ ✓ Yes _ ✓	Presence Recent Ird Thin Mucl Other (Ex No Depth (ir No Depth (ir No Depth (ir	of Reduction Red	ced Iron (C tition in Tille (C7) Remarks)		C S) S F.	rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) hallow Aquitard (D3) AC-Neutral Test (D5)

Project/Site: Vega SES 4	City/County: Holtville	e/ Imperial County	Sampling Date: 11/5/2020				
Applicant/Owner: zGlobal, Inc.		State: CA	Sampling Point: 6				
Investigator(s): <u>C. Congedo, C. Torres</u>	Section, Township, Ra	ange: <u>S11, T17S, R16E</u>					
Landform (hillslope, terrace, etc.): <u>Depression</u>	Local relief (concave,	ve, convex, none): None Slope (%): 5					
Subregion (LRR): D	Lat: <u>32.687512</u>	Long: <u>-115.302089</u> Datum: <u>NAD83</u>					
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 pe							
Are climatic / hydrologic conditions on the site typical for t	,						
Are Vegetation, Soil, or Hydrology	•		present? Yes _ ✓ No				
Are Vegetation, Soil, or Hydrology		needed, explain any answe					
SUMMARY OF FINDINGS – Attach site maj		•	ŕ				
Hydrophytic Vegetation Present? Yes✓		,	, ,				
Hydric Soil Present? Yes	No /						
Wetland Hydrology Present? Yes ✓		ind? Yes	No <u>√</u>				
Remarks:							
VEGETATION – Use scientific names of pla	inte						
VEGETATION - Use scientific flames of pla	Absolute Dominant Indicator	Dominance Test work	reheat:				
Tree Stratum (Plot size:)	% Cover Species? Status						
1		That Are OBL, FACW,					
2		Total Number of Domin	ant				
3		Species Across All Stra					
4		Percent of Dominant Sp	pecies				
Sapling/Shrub Stratum (Plot size: 15')	0 = Total Cover	That Are OBL, FACW,	or FAC:100 (A/B)				
1. <u>Pluchea sericea</u>	<u>5</u> xFACW	Prevalence Index wor	ksheet:				
2.			Multiply by:				
3		OBL species 0	x 1 =0				
4			x 2 = <u>10</u>				
5		•	x 3 =0				
Herb Stratum (Plot size:)	= Total Cover	FACU species 0					
1		- Column Totals:5	x = 0 (B)				
2.		Column rotals.	<u> </u>				
3		Prevalence Index	= B/A = <u>2.0</u>				
4		Hydrophytic Vegetation					
5		✓ Dominance Test is					
6		✓ Prevalence Index is					
7			ptations ¹ (Provide supporting s or on a separate sheet)				
8	= Total Cover	Problematic Hydro	phytic Vegetation ¹ (Explain)				
Woody Vine Stratum (Plot size:)	= Total Cover						
1			il and wetland hydrology must				
2		be present, unless distu	urbed or problematic.				
	= Total Cover	Hydrophytic Vegetation					
% Bare Ground in Herb Stratum95 % Cov	ver of Biotic Crust		s/_ No				
Remarks:							

Depth	Matrix	0.1		x Feature		. 2	- .				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-13	7.5YR 4/4	100			-						
13-14	10YR 7/3	85	2.5YR 4/8	5	-		Silty clay				
13-14	Gley 1, 3/N	10					Silty clay				
			· .								
					-						
		_		_	-						
1 _{Type:} C=C		nlotion DN	1=Reduced Matrix, C	S=Covere	d or Coate	ad Sand C	roino ² l contion: [PL=Pore Lining, M=Matrix.			
			I LRRs, unless othe			eu Sanu Gi		blematic Hydric Soils ³ :			
Histosol			Sandy Red		,		1 cm Muck (A9	•			
	pipedon (A2)		Stripped M	. ,			2 cm Muck (A1	, , ,			
	Black Histic (A3) Loamy Mucky Mineral (F1)					Reduced Verti					
	n Sulfide (A4)	0 \	Loamy Gle	-	. ,		Red Parent Ma	` '			
	d Layers (A5) (LRR lick (A9) (LRR D)	C)	Depleted M Redox Dark	. ,			Other (Explain	in Remarks)			
	d Below Dark Surfa	ce (A11)	Depleted D		` ,						
	ark Surface (A12)	,	Redox Dep				³ Indicators of hydro	ophytic vegetation and			
Sandy Mucky Mineral (S1) Vernal Pools (F9)							gy must be present,				
	Gleyed Matrix (S4) Layer (if present):						unless disturbed	or problematic.			
	Layer (II present):										
Type: Depth (inc	chee).						Hydric Soil Presen	t? Yes No_ <u>√</u> _			
Remarks:							Hydric 30ii Fresen	t: 165 NO			
HYDROLO											
_	drology Indicators										
	•	one require	ed; check all that app				Secondary Indicators (2 or more required)				
	Water (A1)		Salt Crust	. ,				arks (B1) (Riverine)			
High wa	iter Table (A2)		Biotic Cru Aquatic In		e (B13)			Deposits (B2) (Riverine) psits (B3) (Riverine)			
	arks (B1) (Nonrive	rine)	Hydrogen					Patterns (B10)			
· · · · · · · · · · · · · · · · · · ·	nt Deposits (B2) (N o	•				Living Roo	ots (C3) Dry-Seas	, ,			
	oosits (B3) (Nonrive		Presence		_	_	Crayfish I				
	Soil Cracks (B6)		Recent Iro					n Visible on Aerial Imagery (C9)			
Inundation	on Visible on Aerial	Imagery (E	· —		. ,			Aquitard (D3)			
	tained Leaves (B9)		Other (Ex	plain in Re	emarks)		✓ FAC-Neu	tral Test (D5)			
Field Observ											
Surface Water			No Depth (in			l l					
Water Table			No Depth (in			l l					
Saturation Proceeds (includes cap		Yes <u>√</u>	No Depth (in	iches): <u>0</u>		Wetl	and Hydrology Prese	nt? Yes <u>√</u> No			
		n gauge, m	nonitoring well, aerial	photos, pi	revious ins	spections),	if available:				
Remarks:											
	. 6										
Salt crust	present from	agricult	ural run-ott.								

Project/Site: Vega SES 4		City/County:	Holtville	/ Imperial Coun	tySam	pling Date:	11/5/	/2020
Applicant/Owner: zGlobal, Inc.				State:	CA Sam	pling Point:	7	7
Investigator(s): <u>C. Congedo</u>		Section, To	wnship, Rar	nge: <u>S11, T17S,</u>	R16E			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave, o	convex, none): N	one	Slo	pe (%):	5
Subregion (LRR): D	Lat: 32.6	587200		Long: -115.30	2318	Datu	m: NAD	083
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perce								
Are climatic / hydrologic conditions on the site typical for this t	time of yea	ar? Yes	/_ No _	(If no, expl	ain in Remark	(s.)		
Are Vegetation, Soil, or Hydrology sig	nificantly o	disturbed?	Are "	Normal Circumsta	ances" presen	t? Yes	<u>/</u> No)
Are Vegetation, Soil, or Hydrology na	turally prob	olematic?	(If ne	eded, explain any	answers in F	Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	sampling	g point lo	ocations, tran	isects, imp	ortant fe	atures	s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No Remarks:			e Sampled in a Wetlan		es	No	-	
Point taken within tamarisk thickets, downsloadl-American Canal.	ope (sou	uth) of a	hard-pad	cked dirt road	d that runs	parallel	to the	
VEGETATION – Use scientific names of plants	S.							
	% Cover	Dominant Species?	Status	Dominance Te Number of Dom That Are OBL, I	inant Species	3		(A)
3				Total Number o Species Across		1	<u> </u>	(B)
4		= Total Co		Percent of Dom That Are OBL, I			00	(A/B)
Sapling/Shrub Stratum (Plot size: 15'	5		FACW	Prevalence Ind	lex workshee	ıt.		
Pluchea sericea Baccharis salicina			·		ver of:		v bv:	
3				OBL species			-	
4.				FACW species				
5.				FAC species				
		= Total Cov	/er	FACU species	0	x 4 =	0	_
Herb Stratum (Plot size: 15')	0		0.01	UPL species	0	x 5 =	0	_
1. Typha sp.				Column Totals:	18	(A)	28	_ (B)
2				Prevalenc	e Index = B/A	\ = <u>1</u> .	.56	_
4.				Hydrophytic V	egetation Ind	icators:		
5.				✓ Dominance	Test is >50%)		
6				✓ Prevalence	Index is ≤3.0	1		
7					cal Adaptation			ing
8				Problemation	Remarks or or		,	n)
Woody Vine Stratum (Plot size:)	8	= Total Co	/er		5 1 1 y al 0 p 1 1 y al 0	rogotation	(Explair	.,
1				¹ Indicators of hy be present, unle				ıust
		= Total Cov	/er	Hydrophytic				
% Bare Ground in Herb Stratum82 % Cover of				Vegetation Present?	Yes <u></u> ✓	No		
Remarks:				I				

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

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No
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Project/Site: Vega SES 4	City	County: Holtville	/ Imperial County	Sampling Date:11/5/2020
Applicant/Owner: zGlobal, Inc.			State: CA	Sampling Point: 9
Investigator(s): C. Congedo	Sec	tion, Township, Ra	nge: <u>S11, T17S, R16E</u>	
Landform (hillslope, terrace, etc.): Depression	Loc	al relief (concave,	convex, none): None	Slope (%):5
Subregion (LRR): D	Lat: 32.683	380	Long: -115.303826	Datum: NAD83
Soil Map Unit Name: Rositas fine sand, 0 to 2 percent s				
Are climatic / hydrologic conditions on the site typical for this		,		
Are Vegetation, Soil, or Hydrology sig	-			oresent? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology na			eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map s				
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No No Remarks:		Is the Sampled within a Wetlar		No <u>√</u>
Point taken within a slight depression in tam road that runs parallel to the All-American C		ets, ~1230 fee	t downslope (south	ı) of a hard-packed dirt
VEGETATION – Use scientific names of plant	s.			
Tree Stratum (Plot size:15')	Absolute Do	ominant Indicator	Dominance Test work	
1. Tamarix sp.			Number of Dominant S That Are OBL, FACW,	pecies or FAC:1 (A)
2			Total Number of Domin	nant
3			Species Across All Stra	
4			Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 15')	= T	otal Cover		or FAC: 100 (A/B)
1. Pluchea sericea	10	x FACW	Prevalence Index wor	ksheet:
2.			Total % Cover of:	Multiply by:
3			OBL species 0	x 1 =0
4			FACW species 10	x 2 =20
5			· ·	x 3 = <u>6</u>
	= T	otal Cover	FACU species 0	
Herb Stratum (Plot size:) 1			· ·	x 5 = 0
2.			Column Totals:1	2 (A) <u>26</u> (B)
3.			Prevalence Index	z = B/A = <u>2.17</u>
4			Hydrophytic Vegetation	on Indicators:
5			✓ Dominance Test is	>50%
6			✓ Prevalence Index is	
7				ptations ¹ (Provide supporting s or on a separate sheet)
8				phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	<u> </u>	otal Cover		
1			¹ Indicators of hydric soi be present, unless distu	il and wetland hydrology must urbed or problematic.
		otal Cover	Hydrophytic	
% Bare Ground in Herb Stratum88 % Cover			Vegetation Present? Ye	s No
Remarks:			1	

Profile Desc	ription: (Describe	to the depth	needed to document the indicator or o	confirm the absence of indicators.)	
Depth	Matrix		Redox Features		
(inches)	Color (moist)	%	Color (moist) % Type ¹ L	_oc ² Texture Remarks	—
0-13+	7.5YR 4/4	100		Loamy sa=	_
					_
					_
					_
					_
					_
					_
¹ Type: C=Co	oncentration. D=De	pletion. RM=R	Reduced Matrix, CS=Covered or Coated S	Sand Grains. ² Location: PL=Pore Lining, M=Matrix.	_
			RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Sandy Redox (S5)	1 cm Muck (A9) (LRR C)	
Histic Ep	pipedon (A2)		Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)	
Black Hi	stic (A3)		Loamy Mucky Mineral (F1)	Reduced Vertic (F18)	
Hydroge	n Sulfide (A4)		Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)	
	l Layers (A5) (LRR	C)	Depleted Matrix (F3)	Other (Explain in Remarks)	
	ck (A9) (LRR D)		Redox Dark Surface (F6)		
	Below Dark Surfa	ce (A11)	Depleted Dark Surface (F7)	31	
	ark Surface (A12) lucky Mineral (S1)		<pre> Redox Depressions (F8) Vernal Pools (F9)</pre>	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,	
-	Bleyed Matrix (S4)		Verrial Pools (F9)	unless disturbed or problematic.	
-	_ayer (if present):			diffess distarsed of problematic.	
	ches):			Hydric Soil Present? Yes No ✓	
Remarks:				11yano con 11cocne. 1co 1co	
Remarks.					
Dry until	about 7", then	moist.			
HYDROLO	GY				
Wetland Hyd	drology Indicators	:			
_			check all that apply)	Secondary Indicators (2 or more required)	
Surface	•		Salt Crust (B11)	Water Marks (B1) (Riverine)	_
	iter Table (A2)		Biotic Crust (B12)	Sediment Deposits (B2) (Riverine)	
Saturation			Aquatic Invertebrates (B13)	Drift Deposits (B3) (Riverine)	
	arks (B1) (Nonrive	rine)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)	
	nt Deposits (B2) (No			ing Roots (C3) Dry-Season Water Table (C2)	
	oosits (B3) (Nonrive		Presence of Reduced Iron (C4)	Crayfish Burrows (C8)	
	Soil Cracks (B6)	,	Recent Iron Reduction in Tilled So		9)
	on Visible on Aerial	Imagery (B7)		Shallow Aquitard (D3)	- /
	tained Leaves (B9)		Other (Explain in Remarks)	✓ FAC-Neutral Test (D5)	
Field Obser	. ,				
Surface Water		Yes No	Depth (inches):		
Water Table			Depth (inches):		
Saturation P			Depth (inches):	Wetland Hydrology Present? Yes _ ✓ No	
(includes cap		1 CO INC	Depui (iliciles).	110 110 110 110 110 110 110 110 110 110	_
		n gauge, mon	itoring well, aerial photos, previous inspec	ctions), if available:	
Remarks:					

Project/Site: Vega SES 4	(City/Co	unty: Ho	ltville/	['] Imperial Coun	ity s	ampling Date	: 11/5	/2020
Applicant/Owner: zGlobal, Inc.					State:	CA S	ampling Poin	t: <u>1</u>	LO
Investigator(s): <u>C. Congedo</u>		Section	, Townsh	hip, Rar	nge: <u>S11, T17S,</u>	R16E			
Landform (hillslope, terrace, etc.): Depression		Local r	elief (con	ncave, c	convex, none): <u>C</u>	oncave		Slope (%):	5
Subregion (LRR): D	Lat: 32.6	58418	2		Long: -115.30	7060	Da	ıtum: NA[D83
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perce									
Are climatic / hydrologic conditions on the site typical for this			,						
Are Vegetation, Soil, or Hydrology sig	nificantly o	disturbe	ed?	Are "l	Normal Circumst	ances" pre	sent? Yes_	✓ No	o
Are Vegetation, Soil, or Hydrology na	turally prol	blemati	c?	(If ne	eded, explain an	y answers i	in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	samp	oling p	oint lo	ocations, trar	nsects, i	mportant	feature	s, etc.
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes _ No Wetland Hydrology Present? Yes ✓ No Remarks:			ls the Sa within a	•		es	_ No <u>√</u>		
Point taken on the outskirts of a slight depre hard-packed dirt road that runs parallel to the					s, ~500 feet o	downslo	pe (south	of a	
VEGETATION - Use scientific names of plants	S.								
	Absolute % Cover				Dominance Te				
1. Tamarix sp.					Number of Don That Are OBL,			1	(A)
2					Total Number o	of Dominan	+		
3					Species Across			1	(B)
4					Percent of Dom	ninant Spec			
Sapling/Shrub Stratum (Plot size: 20')	3	= Iota	l Cover		That Are OBL,	FACW, or	FAC:	100	(A/B)
1. Pluchea sericea	8	X	<u>FA</u>	ACW_	Prevalence Inc	dex works	heet:		
2. <u>Isocoma acradenia</u>	2	-	FA	ACU_			Mult		
3					OBL species				
4					FACW species				
5					FAC species				
Herb Stratum (Plot size:)	10	= Tota	I Cover		FACU species				_
1					UPL species				_ (D)
2.					Column Totals:	15	(A)		_ (B)
3					Prevalenc	ce Index =	B/A =	2.54	_
4					Hydrophytic V	_			
5					<u>√</u> Dominance				
6					✓ Prevalence				
7							itions¹ (Provid r on a separa		ting
8					Problemati		•	,	in)
Woody Vine Stratum (Plot size:)		= Tota	l Cover						·
1					¹ Indicators of hybe present, unle				nust
		= Tota	l Cover		Hydrophytic				
% Bare Ground in Herb Stratum87					Vegetation Present?	Yes	✓ No		
Remarks:									

Depth	cription: (Describe Matrix	to the dep		x Feature		or comm	n the absence of	indicators.)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-13+	7.5YR 4/4	100					Loamy san			
										
					-					
	Concentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.		
•	Indicators: (Applie	cable to all			ed.)			r Problematic Hydric Soils ³ :		
Histoso	` '		Sandy Red					k (A9) (LRR C)		
	pipedon (A2)		Stripped Ma					k (A10) (LRR B)		
_	listic (A3)		Loamy Muc	-				Vertic (F18)		
	en Sulfide (A4)	•	Loamy Gle		(F2)			nt Material (TF2)		
	d Layers (A5) (LRR	C)	Depleted M	, ,	(E0)		Other (Ex	plain in Remarks)		
	uck (A9) (LRR D)	(0.4.4)	Redox Darl	,	,					
	ed Below Dark Surfaction (A12)	ce (A11)	Depleted D				31			
	Mucky Mineral (S1)		Redox Dep Vernal Poo		ro)			hydrophytic vegetation and drology must be present,		
	Gleyed Matrix (S4)		vernai F00	15 (1 9)			-	urbed or problematic.		
	Layer (if present):						uniess diste	indea of problematic.		
· · ·	t \						United a Cold De			
	nches):						Hydric Soil Pr	esent? Yes No <u>√</u>		
Remarks:										
Moist 8"	from surface.									
HYDROLO	OGY									
Wetland Hy	drology Indicators	:								
-	cators (minimum of		check all that appl	v)			Seconda	ry Indicators (2 or more required)		
	: Water (A1)		Salt Crust	•				· · · · · · · · · · · · · · · · · · ·		
	(/			` '			Water Marks (B1) (Riverine)			
	ater Table (A2)		Biotic Cru		o (D12)			ment Deposits (B2) (Riverine)		
Saturat	, ,	wim a)	Aquatic In		, ,			Deposits (B3) (Riverine)		
	Marks (B1) (Nonrive		Hydrogen			Listan Da		nage Patterns (B10)		
	nt Deposits (B2) (No	,			_	_		Season Water Table (C2)		
	posits (B3) (Nonrive	erine)	Presence				-	rfish Burrows (C8)		
	Soil Cracks (B6)		Recent Iro			d Soils (C		ration Visible on Aerial Imagery (C9)		
	ion Visible on Aerial			,				low Aquitard (D3)		
✓ Water-S	Stained Leaves (B9)		Other (Ex	plain in Re	marks)		FAC	-Neutral Test (D5)		
Field Obse	rvations:									
Surface Wa	ter Present?	Yes I	No <u>√</u> Depth (in	ches):		_				
Water Table	Present?	Yes 1	No <u>√</u> Depth (in	ches):						
Saturation F	Present?	Yes I	No <u>✓</u> Depth (in	ches):		Wet	land Hydrology P	resent? Yes <u>√</u> No		
(includes ca	pillary fringe)									
Describe Re	ecorded Data (strear	n gauge, mo	nitoring well, aerial	photos, pr	evious ins	pections),	if available:			
Remarks:										

Project/Site: Vega SES 4	Ci	ty/County:	Holtville/	Imperial County	Sampling Date:11/5/2020
Applicant/Owner: zGlobal, Inc.				State: CA	Sampling Point:11
Investigator(s): C. Congedo	S	ection, Tow	vnship, Rar	nge: S11, T17S, R16E	
Landform (hillslope, terrace, etc.): <u>Depression</u>	L	ocal relief ((concave, c	convex, none): Concave	Slope (%):5
Subregion (LRR): D	Lat: 32.68	34568		Long: -115.307297	Datum: NAD83
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perc				=	
Are climatic / hydrologic conditions on the site typical for this			,		
Are Vegetation, Soil, or Hydrology si	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology na				eded, explain any answe	
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No No Remarks:			e Sampled n a Wetlan		/ No
Point taken within a slight depression in tam road that runs parallel to the All-American C		kets, ~3	00 feet (downslope (south) of a hard-packed dirt
VEGETATION – Use scientific names of plant	ts.				
Tree Stratum (Plot size: 20')	Absolute % Cover			Dominance Test work	
1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,	
2.					
3				Total Number of Domi	_
4				Percent of Dominant S	Snecies
Carling/Object Object on (Diet sing)	=	Total Cov	er	That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 20') 1. Pluchea sericea	15	V	EAC\\\	Prevalence Index wo	rksheet
2. Tamarix sp.					Multiply by:
3					x 1 =0
4					x 2 = 30
5.					x 3 = 21
	20 =	Total Cov	er	FACU species 0	x 4 =0
Herb Stratum (Plot size:)				UPL species 0	x 5 =0
1				Column Totals: 2	22 (A) <u>51</u> (B)
2				Prevalence Index	x = B/A =2.32
3				Hydrophytic Vegetati	<u> </u>
4				✓ Dominance Test is	
5 6				✓ Prevalence Index	
7					aptations ¹ (Provide supporting
8.				data in Remark	ks or on a separate sheet)
		Total Cov	er	Problematic Hydro	ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric so be present, unless dist	oil and wetland hydrology must turbed or problematic.
2		Total Cov	er	Hydrophytic	
% Bare Ground in Herb Stratum				Vegetation	es <u>√</u> No
Remarks:					

(inches)	Color (moist)	%	Color (moist)	% <u>Features</u>	Type ¹	Loc ²	Texture	Remarks
0-1	Gley 1, 2.5/N	65	7.5YR 4/4	35	71.		Loamy sa	
1-4	7.5YR 4/4	100	7.511(4)4	_ <u></u>			Loamy sa	
4-12	7.5YR 4/4	94	5Y 4/6	6		DI	Loam	
4-12	7.51K 4/4		31 4/0			<u> </u>	LOam	
	-		-	_ .				
¹ Type: C=Co	oncentration, D=Dep	letion, RM	I=Reduced Matrix, C	S=Covered	or Coate	ed Sand Gr	ains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applic	able to al	I LRRs, unless other	erwise note	d.)		Indicators for	Problematic Hydric Soils ³ :
Histosol			Sandy Red					k (A9) (LRR C)
	nipedon (A2)		Stripped M		([1)			k (A10) (LRR B)
Black His	n Sulfide (A4)			cky Mineral yed Matrix (Vertic (F18) nt Material (TF2)
	Layers (A5) (LRR (C)	Depleted N		1 2)			plain in Remarks)
	ck (A9) (LRR D)	,		k Surface (F	- 6)			,
	Below Dark Surfac	e (A11)		ark Surface			2	
	ark Surface (A12)		✓ Redox Dep		8)			hydrophytic vegetation and
-	lucky Mineral (S1) leyed Matrix (S4)		Vernal Poo	ois (F9)			-	drology must be present, urbed or problematic.
-	ayer (if present):						diffess diste	index of problematio.
Type:								
	ches):		<u> </u>				Hydric Soil Pr	esent? Yes <u>√</u> No
Remarks:							1 -	
HYDROLO(GV							
	drology Indicators:							
_	nology maleators.							
Primary Indic	ators (minimum of c		ed: check all that ann	ılv)			Seconda	ry Indicators (2 or more required)
-	-		ed; check all that app					ry Indicators (2 or more required)
Surface	Water (A1)		Salt Crus	t (B11)			Wate	er Marks (B1) (Riverine)
Surface High Wa	Water (A1) ter Table (A2)		Salt Crus	t (B11) ist (B12)	(B13)		Wate Sedi	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine)
Surface \(\) High Wa \(\) Saturation	Water (A1) ter Table (A2)	one require	Salt Crus	t (B11) ist (B12) nvertebrates			Wate Sedi Drift	er Marks (B1) (Riverine)
Surface High Wa Saturatio Water M	Water (A1) ter Table (A2) on (A3)	one require	Salt Crus Biotic Cru Aquatic Ir Hydrogen	t (B11) ist (B12) nvertebrates i Sulfide Odd	or (C1)	Living Roo	Wate Sedi Drift Draii	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine)
Surface High Wa Saturatio Water M Sedimen	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver	ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized	t (B11) ist (B12) nvertebrates i Sulfide Odd	or (C1) es along	•	Wate Sedi Drift Drain Drain ts (C3) Dry-	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10)
Surface ' High Wa Saturatic Water M Sedimen Drift Dep	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver it Deposits (B2) (No	ine) nriverine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized	t (B11) ust (B12) nvertebrates Sulfide Odd Rhizosphere of Reduced	or (C1) es along I Iron (C4	1)	Wate Sedi Drift Drain ats (C3) Dry-	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2)
Surface High Was Saturation Water M Sediment Drift Dep Surface	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver tt Deposits (B2) (No	ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc	t (B11) ust (B12) nvertebrates Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C	or (C1) es along I Iron (C4 n in Tille C7)	1)	Wate Sedi Drift Drain ts (C3) Dry Cray Satu Shal	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep Surface Inundation Water-St	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9)	ine) nriverine) rine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir	t (B11) ust (B12) nvertebrates Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C	or (C1) es along I Iron (C4 n in Tille C7)	1)	Wate Sedi Drift Drain ts (C3) Dry Cray Satu Shal	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) ffish Burrows (C8) ration Visible on Aerial Imagery (C9)
Surface de High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep Surface de Inundation Water-St	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations:	ine) nriverine) rine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire Thin Muc	t (B11) ust (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C	or (C1) es along I Iron (C4 n in Tille C7) narks)	t) d Soils (C6	Wate Sedi Drift Drain ts (C3) Dry Cray Satu Shal	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Surface ' High Wa Saturatio Water M Sedimen Drift Dep Surface : Inundatio Water-Si Field Observ Surface Water	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No cosits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present?	ine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex	t (B11) ust (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C	or (C1) es along I Iron (C4 n in Tille C7) narks)	t) d Soils (C6	Wate Sedi Drift Drain ts (C3) Dry Cray Satu Shal	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep Surface Inundation Water-Si Field Observ Surface Water Water Table	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Y	rine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrates s Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C cplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain tts (C3) Cray Cray Satu Shal ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface ' High Wa Saturatio Water M Sedimen Drift Dep Surface : Inundatio Water-Si Field Observ Surface Water Water Table Saturation Pr	water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Y	rine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex	t (B11) ust (B12) nvertebrates s Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C cplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain tts (C3) Cray Cray Satu Shal ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3)
Surface ' High Wa Saturatio Water M Sedimen Drift Dep Surface ! Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Present? Y resent? Y resent? Y	ine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface ' High Wa Saturatio Water M Sedimen Drift Dep Surface ! Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Present? Y resent? Y resent? Y	ine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface ' High Wa Saturatio Water M Sedimen Drift Dep Surface ! Inundatio Water-Si Field Observ Surface Water Table Saturation Pr (includes cap	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Present? Y resent? Y resent? Y	ine) nriverine) Imagery (E	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep — Surface Inundation Water-Si Field Observ Surface Water Surface Water Table Saturation Pr (includes cap Describe Reco	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Yesent? Yesent? Corded Data (stream	rine) nriverine) Imagery (E 'es 'es n gauge, m	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep — Surface Inundation Water-Si Field Observ Surface Water Surface Water Table Saturation Pr (includes cap Describe Reco	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial I tained Leaves (B9) vations: er Present? Present? Y resent? Y resent? Y	rine) nriverine) Imagery (E 'es 'es n gauge, m	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep — Surface Inundation Water-Si Field Observ Surface Water Surface Water Table Saturation Pr (includes cap Describe Reco	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Yesent? Yesent? Corded Data (stream	rine) nriverine) Imagery (E 'es 'es n gauge, m	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)
Surface High Wa Saturation Water M ✓ Sedimen ✓ Drift Dep — Surface Inundation Water-Si Field Observ Surface Water Surface Water Table Saturation Pr (includes cap Describe Reco	Water (A1) ter Table (A2) on (A3) arks (B1) (Nonriver at Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Yesent? Yesent? Corded Data (stream	rine) nriverine) Imagery (E 'es 'es n gauge, m	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex No ✓ Depth (ir No ✓ Depth (ir	t (B11) list (B12) nvertebrates a Sulfide Odd Rhizosphere of Reduced on Reduction k Surface (C eplain in Ren nches):	or (C1) es along I Iron (C4 n in Tille C7) narks)	4) d Soils (C6	Wate Sedi Drift Drain ats (C3) Dry Cray Satu Shal _ ✓ FAC	er Marks (B1) (Riverine) ment Deposits (B2) (Riverine) Deposits (B3) (Riverine) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) low Aquitard (D3) -Neutral Test (D5)

Project/Site: Vega SES 4		City/County	: Holtville	/ Imperial County	_ Sampling Date	e: <u>11/5/20</u>	020
Applicant/Owner: zGlobal, Inc.				State: <u>CA</u>	_ Sampling Poin	it: <u>12</u>	
Investigator(s): C. Congedo		Section, To	wnship, Ra	nge: <u>S11, T17S, R16E</u>			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave,	convex, none): Concav	e S	Slope (%):	3
Subregion (LRR): D	Lat: 32.	683847		Long: <u>-115.309409</u>	Da	atum: NAD83	3
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perc							
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	✓ No	(If no, explain in	Remarks.)		
Are Vegetation, Soil, or Hydrology sign	gnificantly	disturbed?	Are '	'Normal Circumstances"	present? Yes_	No	
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(If ne	eded, explain any answ	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map s	howing	samplin	g point l	ocations, transect	s, important	features,	etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No Remarks:			e Sampled in a Wetlar		√ No		
Point taken within a slight depression in tam road that runs parallel to the All-American C		ickets, ~3	300 feet	downslope (south) of a hard-p	acked dirt	ţ
VEGETATION – Use scientific names of plant	s.						
		Dominant Species?		Dominance Test wor			
1. Tamarix sp.				Number of Dominant : That Are OBL, FACW		1 (A	4)
2.				Total Number of Dom			,
3				Species Across All St		(B	3)
4				Percent of Dominant S	Species		
Sapling/Shrub Stratum (Plot size:)	5	= Total Co	ver	That Are OBL, FACW		100 (A	√B)
1. <u>Tamarix sp.</u>	2		FAC	Prevalence Index wo	rksheet:		
2. Pluchea sericea		Х		Total % Cover of:	Mult	iply by:	
3				OBL species 0	x 1 =	0	
4				FACW species 15	x 2 =	30	
5				FAC species 7	x 3 =	21	
		= Total Co	ver	FACU species 0	x 4 =	0	
Herb Stratum (Plot size:)				UPL species 0	x 5 =	0	
1				Column Totals:	<u>22</u> (A) _	51 ((B)
2				Prevalence Inde	ex = B/A =	2.32	
3				Hydrophytic Vegetat	<u> </u>		
				✓ Dominance Test			
5				✓ Prevalence Index			
6				Morphological Ad	aptations ¹ (Provi	de supportinc	ו
7 8				data in Remar	ks or on a separa	ate sheet)	•
		= Total Co	ver	Problematic Hydr	ophytic Vegetatio	on¹ (Explain)	
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric so be present, unless dis			st
2		= Total Co		Hydrophytic			
W Barra Coronal in Harts Otratura 79		_		Vegetation	(/ N-		
% Bare Ground in Herb Stratum 78 % Cover	ot Riotic C	rust		Present? Y	es <u>√</u> No		
Remarks:							

Depth	Matrix	0/		x Featur		1 - 2		Dawd
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-1	Gley 1, 5/N				_		Loamy san	
0-1	7.5YR 4/4	30					Loamy san	
1-3	7.5YR 4/4	97	Gley 1, 5/N	3	C	M	Loamy sa+	
3-12	7.5YR 4/4	95	7.5YR 5/8	5	C	M	Loamy sa	
							- <u></u>	
		_			_			
1Tuno: C=C		olotion DA	4-Daduard Matrix C		ad ar Cast		Proince 21 continu	DI -Dara Lining M-Matrix
			I LRRs, unless othe			eu Sanu G		PL=Pore Lining, M=Matrix. oblematic Hydric Soils ³ :
Histosol			Sandy Red		,,,		1 cm Muck (A	•
	pipedon (A2)		Stripped Ma	. ,)		2 cm Muck (A	, ,
Black His			Loamy Muc				Reduced Ver	
	n Sulfide (A4)		Loamy Gley		. ,			Material (TF2)
	Layers (A5) (LRR	C)	Depleted M	•	•		Other (Explai	n in Remarks)
	ick (A9) (LRR D) d Below Dark Surfac	re (Δ11)	Redox Dark Depleted D		. ,			
	ark Surface (A12)	c (ATT)	Redox Dep				³ Indicators of hvd	rophytic vegetation and
	lucky Mineral (S1)		Vernal Poo		()		•	ogy must be present,
	Bleyed Matrix (S4)						unless disturbe	ed or problematic.
Restrictive L	ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Prese	nt? Yes <u>√</u> No
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators	:						
Primary Indic	ators (minimum of	one require	ed; check all that appl	y)			Secondary I	ndicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Water M	farks (B1) (Riverine)
High Wa	ter Table (A2)		Biotic Crus	st (B12)			Sedime	nt Deposits (B2) (Riverine)
Saturatio	on (A3)		Aquatic In	vertebrat	tes (B13)		Drift De	posits (B3) (Riverine)
Water M	arks (B1) (Nonrive	rine)	Hydrogen					e Patterns (B10)
	nt Deposits (B2) (No		·		-	-	oots (C3) Dry-Sea	• •
	oosits (B3) (Nonrive	erine)	Presence					Burrows (C8)
	Soil Cracks (B6)	l (1	Recent Iro			ed Soils (C	, <u>—</u>	on Visible on Aerial Imagery (C9)
	on Visible on Aerial tained Leaves (B9)	Imagery (I	B7) Thin Muck Other (Exp		. ,			Aquitard (D3) autral Test (D5)
Field Observ	. ,		Other (EX	Jiaiii iii r	(emarks)		<u>v</u> FAC-Ne	eutrai Test (D5)
Surface Water		/ec	No <u>✓</u> Depth (in	ches).				
Water Table			No ✓ Depth (in					
Saturation Pr			No ✓ Depth (in				tland Hydrology Pres	ent? Yes ✓ No
(includes cap			No <u>v</u> Deptii (iii	Ci ies)		_ ****	liana riyarology Fres	ent: 163 <u>v</u> NO
Describe Red	corded Data (stream	n gauge, n	nonitoring well, aerial	photos, p	previous in	spections)	, if available:	
Remarks:								
Moist at 7	7" deep.							
	•							

Project/Site: Vega SES 4	(City/Count	y: <u>Holtville</u> ,	/ Imperial County	Sampling Date: 11/5/2020
Applicant/Owner: zGlobal, Inc.				State: CA	Sampling Point: 13
Investigator(s): C. Congedo	;	Section, To	ownship, Ra	nge: <u>S10, T17S, R16E</u>	
Landform (hillslope, terrace, etc.): Depression		Local relie	ef (concave, o	convex, none): Concave	Slope (%): <u>3</u>
Subregion (LRR): D	Lat: 32.0	683831		Long: <u>-115.310470</u>	Datum: NAD83
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perce					
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes _	√ No _	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly	disturbed?	Are "	Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	howing	samplir	ng point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:			he Sampled hin a Wetlar		No <u>√</u>
Point taken on the outskirts of a slight depre hard-packed dirt road that runs parallel to the				s, ~200 feet downs	slope (south) of a
VEGETATION – Use scientific names of plants	s.				
Tree Stratum (Plot size: 15')			t Indicator Status	Dominance Test work	
1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,	
2				Total Number of Domir	nant
3				Species Across All Stra	
4				Percent of Dominant S	
Sapling/Shrub Stratum (Plot size:15')	2	= Total C	over	That Are OBL, FACW,	or FAC: 100 (A/B)
1. <u>Isocoma acradenia</u>	4		FACU	Prevalence Index wor	rksheet:
2. Pluchea sericea				Total % Cover of:	Multiply by:
3				OBL species 0	x 1 =0
4					x 2 = <u>16</u>
5					x 3 = 6
	12	= Total C	over		x 4 = <u>16</u>
Herb Stratum (Plot size:)					x 5 =0
1 2				Column Totals:1	<u>14</u> (A) <u>38</u> (B)
3.				Prevalence Index	x = B/A = <u>2.71</u>
4				Hydrophytic Vegetati	on Indicators:
5				✓ Dominance Test is	3 >50%
6				✓ Prevalence Index	is ≤3.0 ¹
7					aptations ¹ (Provide supporting
8					ss or on a separate sheet) ophytic Vegetation¹ (Explain)
Woody Vino Stratum (Plat size:	0	= Total C	over	1 Toblematic Hydro	priyue vegetation (Explain)
Woody Vine Stratum (Plot size:) 1 2				¹ Indicators of hydric so be present, unless dist	oil and wetland hydrology must turbed or problematic.
		= Total C	over	Hydrophytic	
% Bare Ground in Herb Stratum86 % Cover of				Vegetation Present? Ye	es ✓ No
Remarks:				ı	

Depth	Matrix Color (moist)	%	Color (moist)	ox Feature %	es Type ¹	Loc ²	Toyturo	e Remarks	
(inches)		-	Color (moist)		туре	LOC			_
0-7	7.5YR 4/4	100					Loamy s		_
7-14	7.5YR 4/4	97	7.5YR 5/8	3	<u>C</u>	_ <u>PL</u>	Loamy sa	<u> </u>	_
									_
			_						_
									_
		- '							
		_							_
						_			_
1								2	_
			I=Reduced Matrix, C I LRRs, unless othe			ted Sand G		² Location: PL=Pore Lining, M=Matrix. tors for Problematic Hydric Soils ³ :	
•		able to all	•		teu.)			•	
Histosol	oipedon (A2)		Sandy Red Stripped M	, ,				cm Muck (A9) (LRR C) cm Muck (A10) (LRR B)	
Black Hi			Loamy Mu		al (F1)			educed Vertic (F18)	
	n Sulfide (A4)		Loamy Gle	-				ed Parent Material (TF2)	
Stratified	l Layers (A5) (LRR	C)	Depleted N	1atrix (F3)			Oth	her (Explain in Remarks)	
	ck (A9) (LRR D)		Redox Dar		. ,				
	Below Dark Surfac	e (A11)	Depleted D				31	Anna of harden de die anna de die anna de	
	ark Surface (A12) lucky Mineral (S1)		Redox Dep Vernal Poo		(F8)			tors of hydrophytic vegetation and and hydrology must be present,	
	Bleyed Matrix (S4)		vernar Foc	115 (1 9)				ess disturbed or problematic.	
-	_ayer (if present):								
Type:									
Depth (inc	ches):						Hydric S	Soil Present? Yes No _ ✓	_
Remarks:									
HYDROLO	GY								
Wetland Hyd	drology Indicators	:							
Primary Indic	ators (minimum of	ne require	ed; check all that app	ly)			Se	econdary Indicators (2 or more required)	_
Surface	Water (A1)		Salt Crus	t (B11)				_ Water Marks (B1) (Riverine)	
High Wa	iter Table (A2)		Biotic Cru	st (B12)				_ Sediment Deposits (B2) (Riverine)	
Saturation	on (A3)		Aquatic Ir	vertebrat	es (B13)		_	_ Drift Deposits (B3) (Riverine)	
Water M	arks (B1) (Nonrive i	rine)	Hydrogen	Sulfide C	dor (C1)			_ Drainage Patterns (B10)	
✓ Sedimer	nt Deposits (B2) (No	nriverine)	Oxidized	Rhizosph	eres alon	g Living Ro	ots (C3)	_ Dry-Season Water Table (C2)	
	oosits (B3) (Nonrive	rine)	Presence					_ Crayfish Burrows (C8)	
	Soil Cracks (B6)		Recent Ire			ed Soils (C		_ Saturation Visible on Aerial Imagery (C9	1)
	on Visible on Aerial	Imagery (E			` '		·	_ Shallow Aquitard (D3)	
	tained Leaves (B9)		Other (Ex	piain in R	emarks)		_	FAC-Neutral Test (D5)	
Field Observ		/	No. / Double (in	-					
Surface Water			No ✓ Depth (in						
Water Table			No ✓ Depth (in				امساما المسما	No.	
Saturation Proceed (includes cap		'es	No <u>✓</u> Depth (ir	icnes):		wet	iana Hyaroi	ology Present? Yes ✓ No	_
		n gauge, m	onitoring well, aerial	photos, p	revious ir	spections),	, if available:	9:	
Remarks:									
Soil moist	at 7" depth.								
55.1 1110150	acpuii								

Project/Site: Vega SES 4	(City/County	: Holtville	/ Imperial Coun	ty Sam	npling Date:	11/5/	/2020
Applicant/Owner: zGlobal, Inc.				State:	CA Sam	npling Point:	1	4
Investigator(s): C. Congedo	;	Section, To	wnship, Ra	nge: <u>S10, T17S,</u>	R16E			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave,	convex, none): <u>Co</u>	oncave	Slo	pe (%):	3
Subregion (LRR): D	Lat: 32.6	583739		Long: <u>-115.31</u>	1776	Datu	ım: <u>NAC</u>)83
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 perce								
Are climatic / hydrologic conditions on the site typical for this t	ime of yea	ar? Yes	✓ No _	(If no, expl	ain in Remar	ks.)		
Are Vegetation, Soil, or Hydrologysig	nificantly o	disturbed?	Are "	Normal Circumsta	ances" prese	nt? Yes	<u>✓</u> No)
Are Vegetation, Soil, or Hydrology nat	turally pro	blematic?	(If ne	eded, explain any	answers in	Remarks.)		
SUMMARY OF FINDINGS - Attach site map sl	howing	samplin	g point l	ocations, trar	sects, im	portant fe	atures	s, etc.
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ No Wetland Hydrology Present? Yes ✓ No Remarks:			e Sampled in a Wetlar		es	No	-	
Point taken within arrow weed thickets, ~90 parallel to the All-American Canal.	feet do	wnslope	(south)	of a hard-pac	ked dirt ro	oad that r	uns	
VEGETATION – Use scientific names of plants								
		Dominant Species?		Dominance Te				
1. Prosopis pubescens				Number of Dom That Are OBL, I			<u> </u>	(A)
2. Tamarix sp.	2		FAC	Total Number o	f Dominant			
3				Species Across			1	(B)
4				Percent of Dom	inant Species	S		
Sapling/Shrub Stratum (Plot size:)	4	= Total Co	ver	That Are OBL, I	FACW, or FA	.C: <u>10</u>	00	(A/B)
1. <u>Pluchea sericea</u>	15	X	FACW	Prevalence Inc	lex workshe	et:		
2				Total % Co	ver of:	Multip	y by:	_
3				OBL species	0	x 1 =	0	_
4				FACW species	-			
5		-		FAC species				_
Herb Stratum (Plot size:)	15	= Total Co	ver	FACU species				-
1				UPL species				- (D)
2				Column Totals:	19	_ (A)	42	_ (B)
3.				Prevalenc	e Index = B/	A =2	.21	_
4				Hydrophytic V	egetation Inc	dicators:		
5				✓ Dominance	Test is >50%	%		
6				✓ Prevalence				
7					cal Adaptatio Remarks or o			ing
8				Problemati			,	n)
Woody Vine Stratum (Plot size:)	0	= Total Co	ver	_	, , ,	Ü	` '	,
1				¹ Indicators of hy be present, unle				ıust
		= Total Co	ver	Hydrophytic				
% Bare Ground in Herb Stratum81 % Cover of				Vegetation Present?	Yes	/ No		
Remarks:				1				

Profile Desc	ription: (Describe	to the de	oth needed to docur	ment the	indicator	or confirm	the absence of	indicators.)
Depth Matrix (inches) Color (moist) %				x Feature	1	. 2		
			Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-6	7.5YR 4/4	95	5YR 4/6	_ <u>5</u>	<u>C</u>	<u>PL</u>	loam	
6-14+	10YR 5/3	92	5YR 4/6	8	<u>C</u>	M, PL	Loamy sa	
		_						<u> </u>
		_	-					
					<u> </u>			
			=Reduced Matrix, CS			ed Sand Gr		on: PL=Pore Lining, M=Matrix.
-		cable to al	I LRRs, unless othe		ed.)			r Problematic Hydric Soils ³ :
Histosol	` '		Sandy Red					k (A9) (LRR C)
Black Hi	oipedon (A2)		Stripped Ma Loamy Mud		J (E1)			k (A10) (LRR B) Vertic (F18)
	n Sulfide (A4)		Loamy Gle	-				nt Material (TF2)
	d Layers (A5) (LRR	C)	Depleted M		(12)			plain in Remarks)
	ick (A9) (LRR D)	- /	Redox Dark		(F6)			,
	d Below Dark Surfac	e (A11)	Depleted D	ark Surfac	ce (F7)			
Thick Da	ark Surface (A12)		✓ Redox Dep	ressions ((F8)		³ Indicators of h	hydrophytic vegetation and
-	lucky Mineral (S1)		Vernal Poo	ls (F9)			-	Irology must be present,
	Bleyed Matrix (S4)						unless distu	irbed or problematic.
	_ayer (if present):							
• • • • • • • • • • • • • • • • • • • •			<u>-</u>					
	ches):						Hydric Soil Pre	esent? Yes No
Remarks:								
Soil moist	throughout: c	organic	material in first	4 inche	25.			
		. 6						
HYDROLO	GY							
Wetland Hyd	drology Indicators	:						
Primary Indic	cators (minimum of	one require	ed; check all that appl	y)			Secondar	ry Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Wate	er Marks (B1) (Riverine)
	iter Table (A2)		Biotic Crus	` '				ment Deposits (B2) (Riverine)
Saturatio	, ,		Aquatic In		es (B13)			Deposits (B3) (Riverine)
·	arks (B1) (Nonrive i	rine)	Hydrogen					nage Patterns (B10)
·	nt Deposits (B2) (No	,				Living Roo	· 	Season Water Table (C2)
	oosits (B3) (Nonrive		Presence		_	_		fish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro				-	ration Visible on Aerial Imagery (C9)
Inundation	on Visible on Aerial	Imagery (E	B7) Thin Muck	Surface	(C7)	,		low Aquitard (D3)
	tained Leaves (B9)	0 , .	Other (Ex	olain in Re	emarks)		· 	-Neutral Test (D5)
Field Observ	vations:							
Surface Wate	er Present?	es/es	No <u>✓</u> Depth (in	ches):				
Water Table			No ✓ Depth (in					
Saturation Pr			No ✓ Depth (in				and Hydrology P	resent? Yes √ No
(includes cap	oillary fringe)							
Describe Red	corded Data (strean	n gauge, m	onitoring well, aerial	photos, pi	revious ins	spections),	if available:	
Remarks:								
Soil moist								

Project/Site: Vega SES 4	Cit	y/County: <u>Holtville,</u>	/ Imperial County	Sampling Date: <u>11/12/2020</u>
Applicant/Owner: zGlobal, Inc.			State: CA	Sampling Point: 400
Investigator(s): <u>C. Congedo, C. Garcia, C. Torres</u>	Se	ction, Township, Ra	nge: <u>S11, T17S, R16E</u>	
Landform (hillslope, terrace, etc.): Toeslope	Lo	ocal relief (concave,	convex, none): Concave	Slope (%):5
Subregion (LRR): D	Lat: <u>32.69</u>	0557	Long: -115.294997	Datum: NAD83
Soil Map Unit Name: Rositas fine sand, wet, 0 to 2 pe	rcent slopes		NWI classific	ation: N/A
Are climatic / hydrologic conditions on the site typical for th	is time of year?	Yes <u>√</u> No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly dis	sturbed? Are "	Normal Circumstances" p	oresent? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology	naturally proble	ematic? (If ne	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing s	ampling point le	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ N Yes ✓ N Remarks:	Vo <u>√</u>	Is the Sampled within a Wetlar		No
Point taken within a previously disturbed riparallel to the All-American Canal. An adjac	ent graded		, , , , , , , , , , , , , , , , , , ,	
VEGETATION – Use scientific names of plan	nts.			
Tree Stratum (Plot size: 15') 1. Tamarix sp.	<u>% Cover</u> <u>S</u>		Dominance Test work Number of Dominant Strat Are OBL, FACW, of	pecies
2			Total Number of Domin Species Across All Stra	
4		Total Cover	Percent of Dominant Sp That Are OBL, FACW, of	
1. Typha sp.	10	x OBL	Prevalence Index wor	ksheet:
2. Pluchea sericea		FACW	Total % Cover of:	Multiply by:
3.			OBL species 10	x 1 =10
4			FACW species 5	x 2 = <u>10</u>
5				x 3 = <u>60</u>
Horb Stratum (Diet size)	15=	Total Cover	FACU species 0	
Herb Stratum (Plot size:) 1				x 5 = 0
2.			Column Totals: 35	5 (A) <u>80</u> (B)
3.			Prevalence Index	= B/A = <u>2.29</u>
4			Hydrophytic Vegetation	on Indicators:
5			✓ Dominance Test is	
6			✓ Prevalence Index is	
7				ptations ¹ (Provide supporting s or on a separate sheet)
8				phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:)	=	Total Cover		
1			¹ Indicators of hydric soi be present, unless distu	l and wetland hydrology must urbed or problematic.
		Total Cover	Hydrophytic	
% Bare Ground in Herb Stratum65			Vegetation Present? Yes	s No
Remarks:				

US Army Corps of Engineers

,· · ·	Matrix	•		ox Feature	es	. ,	- .	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	7.5YR 4/3	80	10YR 7/4	20	<u>C</u>	M	<u>Loam</u>	
3-5	Gley 1, 2.5/N	90	Gley 1, 6/10Y	10			Loam	
5-7	10YR 4/1	100	-	_		<u> </u>	Sandy cla	
7-13	10YR 4/1	100	_				Loamy sa+	
			<u> </u>		_			
¹Type: C=Co	oncentration, D=De	pletion, RN	M=Reduced Matrix, C	S=Covere	d or Coat	ed Sand G	rains. ² Location	: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applie	cable to a	II LRRs, unless othe	erwise no	ted.)		Indicators for P	roblematic Hydric Soils³:
Histosol	` '		Sandy Red	. ,				(A9) (LRR C)
	pipedon (A2)		Stripped M Loamy Mu		SI (E4)		2 cm Muck (Reduced Ve	(A10) (LRR B)
	istic (A3) en Sulfide (A4)		Loamy Gle	-	. ,			Material (TF2)
	d Layers (A5) (LRR	C)	Depleted N					ain in Remarks)
	uck (A9) (LRR D)	,	Redox Dar					-,
	d Below Dark Surfac	ce (A11)	Depleted D					
	ark Surface (A12)		Redox Dep		(F8)		•	drophytic vegetation and
	Mucky Mineral (S1) Gleyed Matrix (S4)		Vernal Poo	ois (F9)			-	logy must be present, ed or problematic.
	Layer (if present):						uniess disturb	eu or probiematic.
Type:								
Depth (inc							Hydric Soil Pres	ent? Yes No √
Remarks:	,							
HYDROLO	GY							
HYDROLO Wetland Hy		:						
Wetland Hyd	drology Indicators		ed; check all that app	oly)			Secondary	Indicators (2 or more required)
Wetland Hyd Primary India	drology Indicators cators (minimum of		ed; check all that app Salt Crus	•				Indicators (2 or more required) Marks (B1) (Riverine)
Wetland Hyd Primary Indic Surface	drology Indicators cators (minimum of Water (A1)		Salt Crus	t (B11)			Water	Marks (B1) (Riverine)
Wetland Hyd Primary Indic Surface	drology Indicators cators (minimum of Water (A1) ater Table (A2)			t (B11) ust (B12)	es (B13)		Water Sedime	Marks (B1) (Riverine) ent Deposits (B2) (Riverine)
Wetland Hyd Primary Indic Surface High Wa Saturatio	drology Indicators cators (minimum of Water (A1) ater Table (A2)	one requir	Salt Crusi	t (B11) ust (B12) nvertebrate			Water Sedime Drift De	Marks (B1) (Riverine)
Wetland Hyd Primary India Surface High Wa Saturatio Water M	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	one requir	Salt Crus Biotic Cru Aquatic Ir Hydrogen	t (B11) ust (B12) nvertebrate n Sulfide C	dor (C1)	Living Ro	Water Sedime Drift De Draina	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine)
Wetland Hyd Primary India Surface ✓ High Wa ✓ Saturatia ✓ Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No	one requir rine) onriverine	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduc	odor (C1) eres along ed Iron (C	4)	Water I Sedime Drift De Drainag ots (C3) Crayfis	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8)
Wetland Hyd Primary India Surface ✓ High Wa ✓ Saturatia ✓ Water M Sedimer Drift Dep Surface	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6)	one requir rine) onriverine erine)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct	odor (C1) eres along ed Iron (C ion in Tille	_	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Satural	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indic Surface ✓ High Wa ✓ Saturatic ✓ Water M — Sedimer — Drift Dep — Surface — Inundation	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial	one requir rine) onriverine erine) Imagery (Salt Crusi Biotic Cru Aquatic Ir Hydrogen) Oxidized Presence Recent Iro B7) Thin Muci	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface	odor (C1) eres along ed Iron (C ion in Tille (C7)	4)	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Satural Shallov	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9)	one requir rine) onriverine erine) Imagery (Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface	odor (C1) eres along ed Iron (C ion in Tille (C7)	4)	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Satural Shallov	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9)
Wetland Hyd Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Observ	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations:	one requir rine) onriverine erine) Imagery (Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ire B7) Thin Muc	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduc on Reduct k Surface	odor (C1) eres along ed Iron (C ion in Tille (C7)	4)	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Satural Shallov	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3)
Wetland Hyde Primary Indice Surface ✓ High Wa ✓ Saturatic ✓ Water M — Sedimer — Drift Dep — Surface — Inundatic — Water-S Field Obsert Surface Water	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present?	one requir rine) onriverine erine) Imagery (Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe e of Reduct on Reduct k Surface xplain in Re	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4)	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Satural Shallov	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Table	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present?	rine) Donriverine erine) Imagery (Yes	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface xplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainag ots (C3) Dry-Se Crayfis 6) Satural Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Wetland Hyde Primary Indice Surface ✓ High Wa ✓ Saturatic ✓ Water M — Sedimer — Drift Dep — Surface — Inundatic — Water-S Field Obsert Surface Water	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present?	rine) Donriverine erine) Imagery (Yes	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muci Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface xplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainag ots (C3) Dry-Se Crayfis 6) Satural Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3)
Wetland Hyde Primary India Surface ✓ High Wa ✓ Saturatia ✓ Water M — Sedimer — Drift Dep — Surface — Inundatia — Water-S Field Obsert Surface Water Water Table Saturation Policy (includes cap	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface kplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Wetland Hyde Primary India Surface ✓ High Wa ✓ Saturatia ✓ Water M — Sedimer — Drift Dep — Surface — Inundatia — Water-S Field Obsert Surface Water Water Table Saturation Policy (includes cap	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface kplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Wetland Hyde Primary India Surface ✓ High Wa ✓ Saturatia ✓ Water M — Sedimer — Drift Dep — Surface — Inundatia — Water-S Field Obsert Surface Water Water Table Saturation Policy (includes cap	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface kplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface kplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface kplain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimer Drift Dep Surface Inundatio Water-S Field Obser Surface Water Water Table Saturation Pr (includes cap Describe Rec	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) (Nonrive nt Deposits (B2) (No posits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial stained Leaves (B9) vations: er Present? Present? resent?	rine) Donriverine erine) Imagery (Yes Yes ✓	Salt Crusi Biotic Cru Aquatic Ir Hydrogen Oxidized Presence Recent Ir Thin Muc Other (Ex	t (B11) ust (B12) nvertebrate n Sulfide C Rhizosphe of Reduct on Reduct k Surface k plain in Re nches):	odor (C1) eres along ed Iron (C ion in Tille (C7) emarks)	4) ed Soils (C	Water I Sedime Drift De Drainae ots (C3) Dry-Se Crayfis Saturat Shallov FAC-N	Marks (B1) (Riverine) ent Deposits (B2) (Riverine) eposits (B3) (Riverine) ge Patterns (B10) ason Water Table (C2) th Burrows (C8) tion Visible on Aerial Imagery (C9) w Aquitard (D3) eutral Test (D5)

Project/Site: Vega SES 4	(City/County	: Holtville	/ Imperial County	Sampling Date	: 11/12	/2020
Applicant/Owner: zGlobal, Inc.				State: CA	Sampling Point	:: <u>40</u>	01
Investigator(s): <u>C. Congedo, C. Garcia, C. Torres</u>	;	Section, To	wnship, Ra	nge: <u>S10, T17S, R16E</u>			
Landform (hillslope, terrace, etc.): <u>Depression</u>		Local relief	(concave,	convex, none): Concave	<u> </u>	lope (%):	10
Subregion (LRR): D	Lat: 32.6	680346		Long: <u>-115.315672</u>	Da	tum: NAD	083
Soil Map Unit Name: Vint loamy very fine sand, wet							
Are climatic / hydrologic conditions on the site typical for this			_				
Are Vegetation, Soil, or Hydrology signature.	gnificantly	disturbed?	Are '	"Normal Circumstances"	present? Yes _	✓ No)
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(If ne	eeded, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map s	howing	samplin	g point l	ocations, transects	s, important f	features	s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No Yes ✓ No No Remarks:			e Sampleo in a Wetla		∕ No		
Point taken within tamarisk thickets, ~850 for to the All-American Canal.	et dowi	nslope (s	outh) of	a hard-packed dirt	road that ru	ıns para	allel
VEGETATION – Use scientific names of plant							
		Dominant Species?		Dominance Test worl			
1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,		1	(A)
2				Total Number of Domir	nant		
3				Species Across All Stra		1	(B)
4				Percent of Dominant S	pecies		
Sapling/Shrub Stratum (Plot size: 20')	10	= Total Co	ver	That Are OBL, FACW,	or FAC:	100	(A/B)
1. Pluchea sericea	3		FACW	Prevalence Index wo	rksheet:		
2				Total % Cover of:			
3					x 1 =		
4				FACW species 3			
5				FAC species 10			-
Herb Stratum (Plot size:)	3	= Total Co	ver	FACU species 0			_
1				UPL species 0 Column Totals: 1			(B)
2.				Column Totals	<u>.5</u> (A)		_ (B)
3				Prevalence Index	c = B/A =	2.77	-
4				Hydrophytic Vegetati			
5				✓ Dominance Test is			
6				✓ Prevalence Index		la accessa anti	
7				Morphological Ada data in Remark	aptations (Provid s or on a separa		ing
8		= Total Co		Problematic Hydro	phytic Vegetatio	n¹ (Explair	n)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric so	il and wetland hy	/drology m	nust
2.				be present, unless dist			
		= Total Co	ver	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 87 % Cover	of Biotic Cı	rust			es <u>√</u> No_		
Remarks:				1			

Profile Desc	ription: (Describe	to the dep	th needed to docun	nent the	indicator	or confirm	the absence	of indicators.)
Depth	Matrix			x Feature				_
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
<u>0-2</u>	10YR 2/1	100			- ——		Silty clay	Organic layer
2-7	7.5YR 4/4	100					Silt loam	
7-10	7.5YR 4/3	99	5YR 5/8	1	<u>C</u>	PL	Silt loam	
10-13+	7.5YR 4/6	85	5YR 5/8	5	С	M	Silt loam	
	Gley 1, 2.5/N	10						
		·						
		· ——		-	- ——			
1= 0.0							. 2,	
			=Reduced Matrix, CS LRRs, unless other			d Sand Gr		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol		able to all	Sandy Redo		.eu.)			fluck (A9) (LRR C)
	oipedon (A2)		Stripped Ma					Muck (A10) (LRR B)
Black Hi			Loamy Muc		al (F1)			ed Vertic (F18)
	n Sulfide (A4)		Loamy Gley					arent Material (TF2)
	d Layers (A5) (LRR (C)	Depleted Ma		. ,			(Explain in Remarks)
	ıck (A9) (LRR D)		Redox Dark	Surface	(F6)			
	d Below Dark Surface	e (A11)	Depleted Da					
	ark Surface (A12)		Redox Depr		(F8)			of hydrophytic vegetation and
-	flucky Mineral (S1)		Vernal Pool	s (F9)				hydrology must be present,
	Layer (if present):						uniess a	isturbed or problematic.
Type:	Layer (ii present).							
	ches):						Hydric Soil	Present? Yes √ No
Remarks:							Tiyunc 30ii	rieseit: ies <u>v</u> No
Remarks.								
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
Primary Indic	cators (minimum of o	ne require	d; check all that apply	y)			Secon	ndary Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			W	/ater Marks (B1) (Riverine)
High Wa	iter Table (A2)		Biotic Crus	st (B12)				ediment Deposits (B2) (Riverine)
Saturation			Aquatic Inv		es (B13)			rift Deposits (B3) (Riverine)
Water M	arks (B1) (Nonriver	ine)	Hydrogen					rainage Patterns (B10)
Sedimer	nt Deposits (B2) (No	nriverine)	Oxidized R	Rhizosphe	eres along l	Living Roc		ry-Season Water Table (C2)
Drift Dep	oosits (B3) (Nonrive	rine)	Presence	of Reduce	ed Iron (C4)	c	rayfish Burrows (C8)
✓ Surface	Soil Cracks (B6)		Recent Iro	n Reduct	ion in Tilled	Soils (C6	s) s	aturation Visible on Aerial Imagery (C9)
Inundation	on Visible on Aerial I	magery (B	7) Thin Muck	Surface	(C7)		s	hallow Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Exp	olain in Re	emarks)		F.	AC-Neutral Test (D5)
Field Observ	vations:							
Surface Water	er Present? Y	es	No <u>√</u> Depth (inc	ches):		_		
Water Table	Present? Y	es	No <u>√</u> Depth (inc	ches):		_		
Saturation Pr	resent? Y	es	No <u>✓</u> Depth (inc	ches):		Wetla	and Hydrology	y Present? Yes <u>√</u> No
(includes cap	oillary fringe)						if available:	
Describe Red	corded Data (stream	gauge, mo	onitoring well, aerial p	onotos, pi	evious ins	pections),	ıı avallable:	
Damania								
Remarks:								
Salt crust,	, but appears to	be fro	m agricultural r	unoff.				

Project/Site: Vega SES 4	(City/County	: Holtville	/ Imperial County	Sampling Date:11/12/2020
Applicant/Owner: zGlobal, Inc.				State: CA	Sampling Point: 402
Investigator(s): <u>C. Congedo, C. Garcia, C. Torres</u>	;	Section, To	wnship, Ra	nge: <u>S10, T17S, R16E</u>	
Landform (hillslope, terrace, etc.): <u>Depression</u>		Local relief	(concave,	convex, none): Concave	Slope (%): <u>10</u>
Subregion (LRR): D	_ Lat: 32.6	682005		Long: -115.316274	Datum: NAD83
Soil Map Unit Name: Rositas sand, 2 to 5 percent slope					
Are climatic / hydrologic conditions on the site typical for this			,		
Are Vegetation, Soil, or Hydrologys	-				present? Yes <u>√</u> No
Are Vegetation, Soil, or Hydrology n				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map			•	,	•
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes ✓ No No Remarks:	o		ie Sampled iin a Wetlai		No
Point taken within tamarisk thickets, downs All-American Canal.	lope (so	uth) of a	hard-pa	cked dirt road that	runs parallel to the
VEGETATION – Use scientific names of plant	ts.				
Tree Stratum (Plot size:15')	Absolute % Cover	Dominant Species?		Dominance Test work	
1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,	
2.					
3				Total Number of Domir Species Across All Stra	
4				Percent of Dominant S	necies
Ocalia y Obash Otashura (Districe)	20	= Total Co	ver		or FAC:100 (A/B)
Sapling/Shrub Stratum (Plot size: 15') 1. Baccharis salicina	1		EAC\A/	Prevalence Index wor	rkshoot:
		X			Multiply by:
Pluchea sericea 3					x 1 =0
4.					x 2 = 72
5.				FAC species 20	
		= Total Co	ver	FACU species 0	
Herb Stratum (Plot size:)				UPL species 0	x 5 =0
1				Column Totals:5	66 (A) <u>132</u> (B)
2				Dravalance Index	D/A - 2.26
3				Hydrophytic Vegetati	(= B/A = <u>2.36</u>
4				✓ Dominance Test is	
5				✓ Prevalence Index i	
6				l —	aptations ¹ (Provide supporting
8				data in Remark	s or on a separate sheet)
<u> </u>		= Total Co	ver	Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric so be present, unless dist	il and wetland hydrology must urbed or problematic.
2		= Total Co		Hydrophytic	
% Bare Ground in Herb Stratum44 % Cover				Vegetation	es√ No
Remarks:				1	

Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confirm	n the absence of inc	dicators.)
Depth	Matrix			ox Feature		1 2	- .	5
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Remarks
0-3	10YR 2/1		-					
3-13+	10YR 4/4	94	5YR 5/8	_ 5	<u></u>	PL, M	Sandy loa	
3-13+			Gley 1, 2.5/N	_ 1	<u>C</u>	M		
			-					
	-		-		_			
			-					
			I=Reduced Matrix, C			ed Sand Gr		PL=Pore Lining, M=Matrix.
1		cable to al	I LRRs, unless other		ted.)			roblematic Hydric Soils ³ :
Histosol	` '		Sandy Red				1 cm Muck (
	pipedon (A2)		Stripped M				2 cm Muck (
Black Hi	en Sulfide (A4)		Loamy Mu Loamy Gle				Reduced Ve	Material (TF2)
	d Layers (A5) (LRR	C)	Depleted N	-	, ,		Other (Expla	
	uck (A9) (LRR D)	0)	Redox Dar				Other (Explo	an in remarks)
l —	d Below Dark Surfac	ce (A11)	Depleted D					
	ark Surface (A12)	, ,	✓ Redox Dep				³ Indicators of hyd	drophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Poo	ls (F9)			wetland hydro	logy must be present,
	Gleyed Matrix (S4)						unless disturb	ed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pres	ent? Yes <u>√</u> No
Remarks:							•	
HYDROLO	GY							
	drology Indicators	•						
1			ed; check all that app	lv)			Socondary	Indicators (2 or more required)
1	•	one require						
Surface	,		Salt Crus	` '				Marks (B1) (Riverine)
	ater Table (A2)		Biotic Cru		oo (D12)			ent Deposits (B2) (Riverine)
✓ Saturation	, ,	vino)	Aquatic Ir					eposits (B3) (Riverine)
	farks (B1) (Nonrive		Hydroger		. ,	Living Dog		ge Patterns (B10)
	nt Deposits (B2) (No				_	_		ason Water Table (C2)
	posits (B3) (Nonrive	erine)	Presence Recent In		•	•		h Burrows (C8)
	Soil Cracks (B6)	Imagan, (E				u Solis (Cc	·	ion Visible on Aerial Imagery (C9)
	on Visible on Aerial	iiiagery (E						v Aquitard (D3)
Field Obser	Stained Leaves (B9)		Other (Ex	piaiii iii K	emarks)		FAC-N	eutral Test (D5)
			NI- / Davide (in	! \				
Surface Wat			No <u>✓</u> Depth (ir					
Water Table			No <u>✓</u> Depth (ir					
Saturation P (includes car		res <u> </u>	No Depth (ir	nches): <u>4</u>		_ Wetl	and Hydrology Pres	sent? Yes <u>√</u> No
		n gauge, m	onitoring well, aerial	photos, p	revious ins	pections),	if available:	
	`	0 0 7	0	. ,,		, ,,		
Remarks:								

Project/Site: Vega SES 4	(City/Count	y: <u>Holtville</u>	/ Imperial County	Sampling Date	: 11/12/2	2020
Applicant/Owner: zGlobal, Inc.				State: CA	_ Sampling Poin	t: <u>403</u>	3
Investigator(s): <u>C. Congedo, C. Garcia, C. Torres</u>	;	Section, T	ownship, Ra	nge: <u>S10, T17S, R16E</u>			
Landform (hillslope, terrace, etc.): Hillslope		Local relie	ef (concave,	convex, none): Convex	<u>(</u>	lope (%):	8
Subregion (LRR): D	Lat: 32.6	581441		Long: -115.315429	Da	tum: NAD8	33
Soil Map Unit Name: Rositas sand, 2 to 5 percent slope				NWI classi			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology si	-			"Normal Circumstances		✓ No_	
Are Vegetation, Soil, or Hydrology na				eeded, explain any ansv			
SUMMARY OF FINDINGS - Attach site map s	showing	samplii	ng point l	ocations, transect	ts, important	features,	etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:	_ √ _		he Sampled		No <u>√</u>		
Point taken within creosote bush scrub upsleeast.	ope of ta	amarisk	thickets.	A dirt access road	l exists 60 fee	t to the	
VEGETATION – Use scientific names of plant	s.						
Tree Stratum (Plot size:) 1	% Cover	Species?		Dominance Test wo Number of Dominant That Are OBL, FACW	Species	1 (/	A)
3				Total Number of Dom Species Across All St		<u>2</u> (E	B)
4		= Total C		Percent of Dominant That Are OBL, FACW		50 (/	A/B)
Sapling/Shrub Stratum (Plot size: 15') 1. Larrea tridentata	2	V	NI/I	Prevalence Index we	orksheet:		
Pluchea sericea				Total % Cover of		iply by:	
3				OBL species 0			
4.				FACW species 3			
5.				FAC species 0	x 3 =	0	
	6	= Total C	over	FACU species 0	x 4 =	0	
Herb Stratum (Plot size:)				UPL species 3	x 5 =	15	
1				Column Totals:	6 (A)	21	(B)
2 3				Prevalence Inde	ex = B/A =	3.5	
4				Hydrophytic Vegeta	· · · · · · · · · · · · · · · · · · ·		
5.				Dominance Test	is >50%		
6.				Prevalence Index	c is ≤3.0 ¹		
7				Morphological Ad			ıg
8				Problematic Hydi	rks or on a separa	,	
Moody Vino Stratum (Plot size:	0	= Total C	over	Troblematic riyu	opriyiic vegetatio	II (Explail)	'
Woody Vine Stratum (Plot size:) 1				¹ Indicators of hydric s be present, unless dis			ıst
2		= Total C	over	Hydrophytic			
% Bare Ground in Herb Stratum94		•		Vegetation Present?	/es No	✓	
Remarks:							
N/L species considered upland.							

Profile Desc	ription: (Describe	to the de	oth needed to docum	nent the	indicator	or confirm	m the absence of indicators.)	_	
Depth	Matrix			x Feature	es	. 2			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	-	
0-7	10YR 4/4	98	5YR 5/8	_1	<u>C</u>	<u>M</u>	Loamy sa		
0-7			7.5YR 9.5/1	1	С	M			
7-12+	10YR 4/4	85	5YR 5/4	5	<u>C</u>	_M	Clay loam	-	
7-12+	10Y 6/4	2	7.5YR 9.5/1	8			Clay loam		
					_				
								_	
								•	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.									
			LRRs, unless other			ca cana c	Indicators for Problematic Hydric Soils ³ :	_	
Histosol	(A1)		Sandy Redo	ox (S5)	·		1 cm Muck (A9) (LRR C)		
Histic Ep	pipedon (A2)		Stripped Ma				2 cm Muck (A10) (LRR B)		
Black His	stic (A3)		Loamy Muc	ky Minera	al (F1)		Reduced Vertic (F18)		
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	k (F2)		Red Parent Material (TF2)		
Stratified	l Layers (A5) (LRR (C)	Depleted Ma	atrix (F3)			Other (Explain in Remarks)		
1 cm Mu	ck (A9) (LRR D)		Redox Dark	Surface	(F6)				
	d Below Dark Surfac	e (A11)	Depleted Da		. ,				
	ark Surface (A12)		Redox Depr		(F8)		³ Indicators of hydrophytic vegetation and		
	lucky Mineral (S1)		Vernal Pool	s (F9)			wetland hydrology must be present,		
	Bleyed Matrix (S4)						unless disturbed or problematic.		
	_ayer (if present):								
Type:							,		
Depth (inches): No No									
Remarks:									
HYDROLO	GY							_	
	drology Indicators:								
_			ed; check all that apply	<i>(</i> /)			Secondary Indicators (2 or more required)		
Surface '		nic require	Salt Crust				Water Marks (B1) (Riverine)		
	` ,			` '					
	iter Table (A2)		Biotic Crus		(D40)		Sediment Deposits (B2) (Riverine)		
Saturatio		• \	Aquatic Inv				Drift Deposits (B3) (Riverine)		
·	arks (B1) (Nonriver	*	Hydrogen			Linda a Da	Drainage Patterns (B10)		
	nt Deposits (B2) (No				_	_	ots (C3) Dry-Season Water Table (C2)		
	oosits (B3) (Nonrive	rine)	Presence		•	•	Crayfish Burrows (C8)		
	Soil Cracks (B6)		Recent Iro			ed Soils (Co			
	on Visible on Aerial I	magery (E					Shallow Aquitard (D3)		
	tained Leaves (B9)		Other (Exp	olain in R	emarks)		FAC-Neutral Test (D5)		
Field Observ									
Surface Water			No Depth (inc						
Water Table			No Depth (inc						
	Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No /_ (includes capillary fringe)								
		gauge, m	onitoring well, aerial p	ohotos, p	revious ins	spections),	, if available:	_	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Remarks:								_	
. torriarno.									

Project/Site: Vega SES 4	(City/County:	Holtville	/ Imperial County	_ Sampling Da	te: 11/12	2/2020
Applicant/Owner: zGlobal, Inc.				State:	Sampling Po	nt: <u>4</u>	04
Investigator(s): <u>C. Congedo, C. Garcia, C. Torres</u>	;	Section, To	wnship, Ra	nge: <u>S15, T17S, R16E</u>			
Landform (hillslope, terrace, etc.): Slope						Slope (%):	5
Subregion (LRR): D							
				NWI classific			
Are climatic / hydrologic conditions on the site typical for thi			_				
Are Vegetation, Soil, or Hydrologys				'Normal Circumstances"		✓ N	n
Are Vegetation, Soil, or Hydrology r				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site map							s, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes ✓ N Yes ✓ N	lo		e Sampled in a Wetlai		/ No		
Point taken within a relatively flat area in a	alkali we	ed- salt g	grass pla	yas and sinks habi	tat.		
VEGETATION - Use scientific names of plan	nts.						
Trop Stratum (Blot size) 201		Dominant		Dominance Test worl	ksheet:		
Tree Stratum (Plot size: 20') 1. Tamarix sp.				Number of Dominant S That Are OBL, FACW,		1	(\(\)
2							(^)
3.				Total Number of Domir Species Across All Stra		1	(B)
4.							(-)
	2	= Total Co	ver	Percent of Dominant S That Are OBL, FACW,		100	(A/B)
Sapling/Shrub Stratum (Plot size: 20')	_		E 4 C) 4 /		-		
1. Plucilea Sericea		X	FACVV	Prevalence Index wor		Itiply by:	
2				Total % Cover of: OBL species 0			
3				FACW species 5			
4				FAC species 2			
0		= Total Co	ver	FACU species 0			_
Herb Stratum (Plot size:)		. 010. 00		UPL species 0		0	
1				Column Totals:			_ (B)
2					D./A	2.20	
3				Prevalence Index			_
4				Hydrophytic Vegetati ✓ Dominance Test is			
5				✓ Prevalence Index			
6				Morphological Ada		vide suppor	tina
7 8				data in Remark			9
0		= Total Co	ver	Problematic Hydro	ophytic Vegetat	ion¹ (Explai	in)
Woody Vine Stratum (Plot size:)		. 010. 00					
1				¹ Indicators of hydric so be present, unless dist			nust
2		= Total Co		Hydrophytic	<u> </u>		
W Para Cround in Harb Observers 02 02				Vegetation			
% Bare Ground in Herb Stratum 93 % Cove	or Blotic Cr	uSI		Present? Ye	esNo	'——	
Remarks:							

Depth	Matrix			K Feature		. 2	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-1	10YR 3/3	100					Silt loam
1-3	10YR 2/1	100					Loam
3-4	7.5YR 4/3	99	7.5YR 8/2	1	<u>C</u>	M	Silty clay
4-12+	10YR 8/2	5	White pg, 9.5/N	15	С	M	Clay
4-12+	7.5YR 4/4	75	5YR 5/8	5	С	M	Clay
			·				
			-				
1			A Deduced Metric 00	0	t	- 1 0 1 0	21
			M=Reduced Matrix, CS II LRRs, unless other			ed Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol		cable to a	Sandy Redo		iou.,		1 cm Muck (A9) (LRR C)
	oipedon (A2)		Stripped Ma	. ,			2 cm Muck (A10) (LRR B)
Black Hi			Loamy Muck		al (F1)		Reduced Vertic (F18)
	en Sulfide (A4)		Loamy Gley				Red Parent Material (TF2)
	d Layers (A5) (LRR	C)	✓ Depleted Ma	, ,			Other (Explain in Remarks)
	ıck (A9) (LRR D) d Below Dark Surfa	co (A11)	Redox Dark Depleted Da				
	ark Surface (A12)	ce (ATT)	Depleted Da		, ,		³ Indicators of hydrophytic vegetation and
	fucky Mineral (S1)		Vernal Pools		(1.0)		wetland hydrology must be present,
-	Bleyed Matrix (S4)			` ,			unless disturbed or problematic.
Restrictive I	Layer (if present):						
Type:							
Depth (inc	ches):						Hydric Soil Present? Yes No
Remarks:							
HYDROLO	GY						
Wetland Hyd	drology Indicators	:					
_			ed; check all that apply	()			Secondary Indicators (2 or more required)
	Water (A1)	•	Salt Crust (Water Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus	. ,			Sediment Deposits (B2) (Riverine)
	on (A3)		Aquatic Inv		es (B13)		Drift Deposits (B3) (Riverine)
Water M	larks (B1) (Nonrive	rine)	Hydrogen S				✓ Drainage Patterns (B10)
Sedimer	nt Deposits (B2) (No	onriverine) Oxidized R	hizosphe	eres along	Living Ro	ots (C3) Dry-Season Water Table (C2)
Drift Dep	oosits (B3) (Nonrive	erine)	Presence of	of Reduc	ed Iron (C	4)	Crayfish Burrows (C8)
	Soil Cracks (B6)		Recent Iron			d Soils (C	
	on Visible on Aerial	0 , (, <u>—</u>		` '		Shallow Aquitard (D3)
	tained Leaves (B9)		Other (Exp	laın ın R	emarks)	<u> </u>	FAC-Neutral Test (D5)
Field Observ			No. / Double Good	.l \.			
Surface Wate			No ✓ Depth (inc				
Water Table			No <u>√</u> Depth (inc				dand Huduslami Bussent2 Vac / Na
Saturation Proceeds (includes cap	resent? pillary fringe)	Yes	No <u>✓</u> Depth (inc	:nes):		wet	land Hydrology Present? Yes No
		n gauge, n	nonitoring well, aerial p	hotos, p	revious ins	spections),	, if available:
Remarks:							

Project/Site: Vega SES 4	(City/County:	Holtville/	/ Imperial Count	:y Samp	pling Date: _	4/13/2022
Applicant/Owner: zGlobal, Inc.	State: <u>CA</u> Sampling Point: <u>501</u>						
Investigator(s): <u>C. Torres, C. Garcia</u>	{	Section, To	wnship, Rar	nge: <u>S11 T17S R1</u>	18E		
Landform (hillslope, terrace, etc.): Slight slope		Local relief	(concave, c	convex, none): No	ne	Slop	oe (%):5
Subregion (LRR): D							
Soil Map Unit Name: 135: Rositas fine sand, wet, 0 to 2							
Are climatic / hydrologic conditions on the site typical for this t			,				
Are Vegetation, Soil, or Hydrology sig	-			Normal Circumsta			/ No
Are Vegetation, Soil, or Hydrology nat				eded, explain any			
SUMMARY OF FINDINGS – Attach site map si							atures, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes No		Is the	e Sampled				
Wetland Hydrology Present? Yes No		with	in a Wetlan	id? Ye	s	No <u>√</u>	
Remarks:							
Sample point taken within tamarisk thickets, in an area that appear	ars to be a i	remnant wet	land due to	high amount of dea	d tamarisk. Lik	ely a remnant	t finger of what
appears to be a currently active wetland (assumption made based	d on healthy	y tamarisk pr	esent throug	ghout area) located	directly northy	west of the St	udy Area.
VEGETATION – Use scientific names of plants							
		Dominant Species?		Dominance Tes			
1				Number of Domi That Are OBL, F			(A)
2.						· <u></u>	
3				Total Number of Species Across		1	(B)
4				Percent of Domi			, ,
201	0	= Total Co	ver	That Are OBL, F			0 (A/B)
Sapling/Shrub Stratum (Plot size: 30')	2	Voc	FAC	Prevalence Inde	ov workshoo	4.	
Tamarix sp. Pluchea sericea	2		<u>FAC</u> FACW	Total % Cov			/ hv·
Pluchea sericea Larrea tridentata		•	N/L	OBL species			-
4. Isocoma acradenia	1		FACU	FACW species			
5.				FAC species			
	7	= Total Cov	ver	FACU species			
Herb Stratum (Plot size: 30')				UPL species	1	x 5 =	5
1				Column Totals:	7	(A)	22 (B)
2				Prevalence	e Index = B/A	\ = 3 ·	14
3				Hydrophytic Ve			
4. 5.				✓ Dominance	_		
6				Prevalence			
7				Morphologic	cal Adaptation	ns¹ (Provide :	
8.					Remarks or on	•	,
		= Total Cov	ver	Problematic	Hydrophytic '	Vegetation'	(Explain)
Woody Vine Stratum (Plot size: 30')				11	alada a a Disabada	41	
1				¹ Indicators of hydbe present, unlea			
2				Hydrophytic			
		= Total Co		Vegetation			
	of Biotic Cr	ust 0	<u> </u>	Present?	Yes <u>√</u>	No	
Remarks:							
Dead tamarisk within plot at 7% cover.							

Depth	Matrix			K Feature:	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-14+	7.5YR 4/4	100					Snd Lm	
								<u>.</u>
		 						<u> </u>
	-							
¹Type: C=C	oncentration, D=Dep	oletion RM=F	Reduced Matrix CS	=Covered	d or Coate	d Sand Gr	rains ² Locatio	on: PL=Pore Lining, M=Matrix.
	Indicators: (Applic							Problematic Hydric Soils ³ :
Histosol			Sandy Redo		,			k (A9) (LRR C)
	oipedon (A2)		Stripped Ma					k (A10) (LRR B)
	stic (A3)		Loamy Mucl		I (F1)			Vertic (F18)
	en Sulfide (A4)		Loamy Gley	-				nt Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		(- –)			plain in Remarks)
	ıck (A9) (LRR D)	,	Redox Dark		(F6)			,
	d Below Dark Surfac	e (A11)	Depleted Da					
Thick Da	ark Surface (A12)		Redox Depr	essions (I	F8)		3Indicators of I	hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Vernal Pools	s (F9)			wetland hyd	drology must be present,
Sandy G	Bleyed Matrix (S4)						unless distu	irbed or problematic.
Restrictive	Layer (if present):							
Type:			<u></u>					
Depth (in	ches):						Hydric Soil Pre	esent? Yes No ✓
Remarks:	,						1 -	
HYDROLO	GY							
Wetland Hy	drology Indicators	<u> </u>						
_	cators (minimum of		check all that apply	()			Soconda	ry Indicators (2 or more required)
-	•	<u>Jile required,</u>					<u> </u>	-
	Water (A1)		Salt Crust	. ,				er Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus		.=			ment Deposits (B2) (Riverine)
Saturation			Aquatic Inv					Deposits (B3) (Riverine)
	larks (B1) (Nonrive		Hydrogen					nage Patterns (B10)
	nt Deposits (B2) (No				_	-		Season Water Table (C2)
	oosits (B3) (Nonrive	rine)	Presence of				 ,	fish Burrows (C8)
Surface	Soil Cracks (B6)		Recent Iro	n Reducti	on in Tille	d Soils (C6	S) Satu	ration Visible on Aerial Imagery (C9)
Inundati	on Visible on Aerial	Imagery (B7)	Thin Muck	Surface (C7)		Shall	low Aquitard (D3)
Water-S	tained Leaves (B9)		Other (Exp	lain in Re	marks)		FAC	-Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	'es N	o <u>√</u> Depth (inc	hes):		_		
Water Table	Present?	es N	o <u>√</u> Depth (inc	ches):				
Saturation P			o ✓ Depth (inc			1	and Hydrology P	resent? Yes No ✓
(includes car	oillary fringe)		o Depti (inc			_ '''	and riyarology i	
	corded Data (strean	n gauge, mon	itoring well, aerial p	hotos, pr	evious ins	pections),	if available:	
Remarks:								

Project/Site: Vega SES 4	(City/County	: Holtville	/ Imperial Count	y Samp	ling Date: _	4/13/2022
Applicant/Owner: zGlobal, Inc.	State: <u>CA</u> Sampling Point: <u>502</u>						502
Investigator(s): <u>C. Torres, C. Garcia</u>		Section, To	wnship, Rar	nge: <u>S10 T17S R1</u>	L8E		
Landform (hillslope, terrace, etc.): Slight slope		Local relief	(concave, c	convex, none): No	ne	Slop	oe (%):5
Subregion (LRR): D	_ Lat: 32.6	592830		Long: <u>-115.109</u>	709	Datur	n: NAD83
Soil Map Unit Name: 135: Rositas fine sand, wet, 0 to 2							
Are climatic / hydrologic conditions on the site typical for this			,				
Are Vegetation, Soil, or Hydrology si	-			Normal Circumsta			' No
Are Vegetation, Soil, or Hydrology na				eded, explain any			
SUMMARY OF FINDINGS – Attach site map s							atures, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No) <u>v</u>		e Sampled			,	
Wetland Hydrology Present? Yes ✓ No.		with	in a Wetlan	nd? Yes	s N	10	
Remarks:							
Sample point taken within tamarisk thickets, in an area that app				•		•	•
appears to be a currently active wetland (assumption made base	ed on healthy	y tamarisk p	resent throug	ghout area) located	directly northw	est of the Stu	udy Area.
VECETATION . Her asignific names of plant							
VEGETATION – Use scientific names of plant							
Tree Stratum (Plot size: 30')	Absolute <u>% Cover</u>	Dominant Species?		Dominance Tes			
1. Tamarix sp.				Number of Domi That Are OBL, F.			(A)
2				Total Number of	Dominant		
3				Species Across		2	(B)
4				Percent of Domii	nant Species		
Sapling/Shrub Stratum (Plot size: 30')	5	= Total Co	ver	That Are OBL, F.		:50	(A/B)
1. Ambrosia dumosa	3	Yes	N/L	Prevalence Inde	ex worksheet	:	
Pluchea sericea			FACW	Total % Cov	er of:	Multiply	by:
3.				OBL species			-
4				FACW species	1	x 2 =	2
5				FAC species		·	
Herb Stratum (Plot size: 30')	4	= Total Co	ver	FACU species			
\				UPL species			15
1				Column Totals:	9	(A)	32 (B)
3				Prevalence	e Index = B/A	= 3.5	55
4.				Hydrophytic Ve	getation Indi	cators:	
5				Dominance			
6				Prevalence			
7				Morphologic	cal Adaptations emarks or on	s ¹ (Provide s	supporting
8				Problematic		•	*
Woody Vine Stratum (Plot size: 30')	0	= Total Co	ver		,	. 090.0	(=//p/s)
1				¹ Indicators of hyd	dric soil and w	etland hydr	ology must
2.				be present, unles	ss disturbed o	r problemati	íc.
		= Total Co	ver	Hydrophytic			
% Bare Ground in Herb Stratum86 % Cover	of Biotic Cr	rust C)	Vegetation Present?	Yes	No	/
Remarks:							
Dead tamarisk within plot at 5% cover.							
I and the second							

Depth	Matrix			K Features	3			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-14+	7.5YR 4/6	100					Snd Lm	
	•							
¹Type: C=C	oncentration, D=Dep	letion RM=R	Peduced Matrix CS	=Covered	d or Coate	d Sand Gr	rains ² Location	n: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					a cana ci		Problematic Hydric Soils ³ :
Histosol			Sandy Redo		· · · · · ·			(A9) (LRR C)
	pipedon (A2)		Stripped Ma					(A10) (LRR B)
	istic (A3)		Loamy Muck		I (F1)		Reduced V	
	en Sulfide (A4)		Loamy Gley	-				Material (TF2)
	d Layers (A5) (LRR	C)	Depleted Ma		(1 2)			ain in Remarks)
	uck (A9) (LRR D)	0)	Redox Dark		F6)		Other (Expi	an in Kemarko)
	d Below Dark Surfac	e (A11)	Depleted Da					
	ark Surface (A12)	.5 (7111)	Redox Depr		. ,		3Indicators of hy	drophytic vegetation and
	Aucky Mineral (S1)		Vernal Pools		0)			ology must be present,
	Gleyed Matrix (S4)						-	ped or problematic.
	Layer (if present):							
Type:	, , ,							
Depth (in							Hydric Soil Pres	sent? Yes No ✓
	Cites)						nyunc 3011 Pres	Selit: Tes NOV
Remarks:								
	CV							
HYDROLO								
Wetland Hy	drology Indicators							
Primary Indic	cators (minimum of o	one required;	check all that apply	()			<u>Secondary</u>	Indicators (2 or more required)
Surface	Water (A1)		Salt Crust	(B11)			Water	Marks (B1) (Riverine)
High Wa	ater Table (A2)		Biotic Crus	t (B12)			Sedim	ent Deposits (B2) (Riverine)
Saturati	on (A3)		Aquatic Inv	ertebrate	s (B13)		Drift D	eposits (B3) (Riverine)
	larks (B1) (Nonrive i	ine)	Hydrogen S					age Patterns (B10)
	nt Deposits (B2) (No					Living Roc		eason Water Table (C2)
	posits (B3) (Nonrive		Presence of		_	_		sh Burrows (C8)
	Soil Cracks (B6)	,	Recent Iron					ation Visible on Aerial Imagery (C9)
	on Visible on Aerial	Imagery (B7)				(· —	w Aquitard (D3)
	stained Leaves (B9)	magory (Br)	Other (Exp	`	,			Neutral Test (D5)
Field Obser			Other (Exp		marks)	1		vedital Test (B5)
		/ NI	Double (in	I \.				
Surface Wat			Depth (inc					
Water Table			Depth (inc					
Saturation P	resent?	'es No	Depth (inc	:hes):		_ Wetla	and Hydrology Pre	esent? Yes <u>√</u> No
(includes cap	oillary fringe) corded Data (strean	חמוומם מחום	itoring well porial n	hotos pr	avious inc	nections)	if available:	
Describe 146	Corded Data (Stream	ı gaug e , mon	itoring well, aerial p	niotos, pri	CV10U3 1115	pecions),	ii avallabit.	
Remarks:								

Representative Site Photographs	 ATTACHMENT C
	Representative Site Photographs



Photo 1. View of the All-American Canal along the northern boundary of the site; photo taken facing west. September 28, 2020.



Photo 2. Vegetation lining the bed of PD-1. Photo taken along northern portion of PD-1, facing northwest. November 5, 2020.



Photo 3. Soil pit sample for Sampling Point 2 taken within the bed of PD-1. November 4, 2020.



Photo 4. Upstream view of ED-1. Photo taken within northern portion of ED-1, facing northwest. November 5, 2020.



Photo 5. Downstream view of ED-2. Photo taken within northern portion of ED-2, facing south. November 5, 2020.



Photo 6. Downstream view of ED-3. Photo taken within northern portion of ED-3, facing southeast. November 5, 2020.



Photo 7. Sample Point 7 taken within the northeastern portion of FSW-3. November 5, 2020.



Photo 8. Sample Point 402 taken within the northeastern portion of FSW-1; photo taken facing southwest. November 5, 2020.



Photo 9. View of riparian habitat within the Study Area buffer and associated with sample point 501. Due to hydrology and vegetation observed, this area is potentially a remnant wetland. Photo taken facing south. April 12, 2022.



Photo 10. View of the All-American Canal as it flows beneath the access road bridge in the eastern portion of the Study Area. Photo taken facing west. April 12, 2022.



Photo 11. View of the Off-line Storage Canal as it flows beneath the access road bridge in the eastern portion of the Study Area. Photo taken facing southeast. April 12, 2022.



Photo 12. View of ED-8 within the Study Area buffer and north of the access road. Photo taken facing north. April 13, 2022.

ATTACHMENT D

USACE ORM Aquatic Resources Table (Provided as an accompanying electronic file)

ATTACHMENT E

Digital Data (Provided as accompanying electronic files)