PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE

AGENDA DATE: May 25, 2023

FROM: PLANNING & DEVELOPMENT SERVICES DEPT. **AGENDA TIME** **1:30 PM/No.1**

PROJECT TYPE: Burrtec Waste Industrials (CUP #22-0002) SUPERVISOR DIST: #4

LOCATION: 1590 Air Crest Drive APN: 017-970-009, 010, 011 & 012

Salton Sea, CA 92275 PARCEL SIZE: Approx. 250 acres

West Shores\Salton City Urban Area Plan

GENERAL PLAN (existing) Salton Sea Airport GENERAL PLAN (proposed) N/A

ZONE (existing) S-1 (Open Space Recreation) ZONE (proposed) N/A

GENERAL PLAN FINDINGS ☒ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 05/25/2023

INITIAL STUDY: #22-0004

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☐	NONE	☐	ATTACHED
AG	☐	NONE	☐	ATTACHED
APCD	☒	NONE	☐	ATTACHED
E.H.S.	☐	NONE	☐	ATTACHED
FIRE / OES	☐	NONE	☐	ATTACHED
SHERIFF OFFICE	☐	NONE	☐	ATTACHED
OTHER				

REQUESTED ACTION:

(See Attached)

Imperial County Planning & Development Services
(Jim Minnick, Director)
801 MAIN ST., EL CENTRO, CA, 92243 442-265-1736

Initial Study & Environmental Analysis
For:

Burrtec Commercial Water Well and Farming Project

Prepared By:

COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243
(442) 265-1736
www.icpds.com

May 2023

TABLE OF CONTENTS

SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting from the proposed Burrtec Commercial Water Well and Farming Project .

B. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS AND THE IMPERIAL COUNTY'S GUIDELINES FOR IMPLEMENTING CEQA

As defined by Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines and Section 7 of the County's "CEQA Regulations Guidelines for the Implementation of CEQA, as amended", an **Initial Study** is prepared primarily to provide the Lead Agency with information to use as the basis for determining whether an Environmental Impact Report (EIR), Negative Declaration, or Mitigated Negative Declaration would be appropriate for providing the necessary environmental documentation and clearance for any proposed project.

☐ According to Section 15065, an **EIR** is deemed appropriate for a particular proposal if the following conditions occur:

- The proposal has the potential to substantially degrade quality of the environment.
- The proposal has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The proposal has possible environmental effects that are individually limited but cumulatively considerable.
- The proposal could cause direct or indirect adverse effects on human beings.

☐ According to Section 15070(a), a **Negative Declaration** is deemed appropriate if the proposal would not result in any significant effect on the environment.

☐ According to Section 15070(b), a **Mitigated Negative Declaration** is deemed appropriate if it is determined that though a proposal could result in a significant effect, mitigation measures are available to reduce these significant effects to insignificant levels.

This Initial Study (IS) is prepared in conformance with the California Environmental Quality Act of 1970, as amended (Public Resources Code, Section 21000 et. seq.); Section 15070 of the State & County of Imperial's Guidelines for Implementation of the California Environmental Quality Act of 1970, as amended (California Code of Regulations, Title 14, Chapter 3, Section 15000, et. seq.); applicable requirements of the County of Imperial; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

Pursuant to the County of Imperial Guidelines for Implementing CEQA, depending on the project scope, the County of Imperial Board of Supervisors, Planning Commission and/or Planning Director is designated the Lead Agency, in accordance with Section 15050 of the CEQA Guidelines. The Lead Agency is the public agency which has the principal responsibility for approving the necessary environmental clearances and analyses for any project in the County.

C. INTENDED USES OF INITIAL STUDY AND NEGATIVE DECLARATION

1) This IS and Notice of Preparation (NOP) are informational documents which are intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals. The IS and NOP prepared for the Project will be circulated for a period of 35 days for public and agency review and comments.

D. CONTENTS OF INITIAL STUDY

This Initial Study is organized to facilitate a basic understanding of the existing setting and environmental implications of the proposed applications.

SECTION 1

I. INTRODUCTION presents an introduction to the entire report. This section discusses the environmental process, scope of environmental review, and incorporation by reference documents.

SECTION 2

II. ENVIRONMENTAL CHECKLIST FORM contains the County's Environmental Checklist Form. The checklist form presents results of the environmental evaluation for the proposed applications and those issue areas that would have either a significant impact, a potentially significant impact, or no impact.

PROJECT SUMMARY, LOCATION, AND EVIRONMENTAL SETTINGS describes the proposed project entitlements and required applications. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and a general description of the surrounding environmental settings.

ENVIRONMENTAL ANALYSIS evaluates each response provided in the environmental checklist form. Each response checked in the checklist form is discussed and supported with sufficient data and analysis as necessary. As appropriate, each response discussion describes and identifies specific impacts anticipated with project implementation.

SECTION 3

III. MANDATORY FINDINGS presents Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

IV. PERSONS AND ORGANIZATIONS CONSULTED identifies those persons consulted and involved in preparation of this Initial Study.

V. REFERENCES lists bibliographical materials used in preparation of this document.

E. SCOPE OF ENVIRONMENTAL ANALYSIS

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized

and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

1. **No Impact:** A "No Impact" response is adequately supported if the impact simply does not apply to the proposed applications.

2. **Less Than Significant Impact:** The proposed applications will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.

3. **Less Than Significant with Mitigation Incorporated:** This applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact".

4. **Potentially Significant Impact:** The proposed applications could have impacts that are considered significant. Additional analyses and possibly an EIR could be required to identify mitigation measures that could reduce these impacts to less-than-significant levels.

F. POLICY-LEVEL or PROJECT-LEVEL ENVIRONMENTAL ANALYSIS

This Initial Study will be conducted under a ☐ policy-level, ☒ project level analysis. Regarding mitigation measures, it is not the intent of this document to "overlap" or restate conditions of approval that are commonly established for future known projects or the proposed applications. Additionally, those other standard requirements and regulations that any development must comply with, that are outside the County's jurisdiction, are also not considered mitigation measures and, therefore, will not be identified in this document.

G. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE

Information, findings, and conclusions contained in this document are based on incorporation by reference of tiered documentation, which is discussed in the following section.

1. Tiered Documents

As permitted in Section 15152(a) of the CEQA Guidelines, information and discussions from other documents can be included into this document. Tiering is defined as follows:

"Tiering refers to using the analysis of general matters contained in a broader EIR (such as the one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project."

Tiering also allows this document to comply with Section 15152(b) of the CEQA Guidelines, which discourages redundant analyses, as follows:

"Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including the general plans, zoning changes, and development projects. This approach can eliminate repetitive discussion of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration."
Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the

requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

(1) Were not examined as significant effects on the environment in the prior EIR; or

(2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

2. Incorporation By Reference

Incorporation by reference is a procedure for reducing the size of EIRs/MND and is most appropriate for including long, descriptive, or technical materials that provide general background information, but do not contribute directly to the specific analysis of the project itself. This procedure is particularly useful when an EIR or Negative Declaration relies on a broadly-drafted EIR for its evaluation of cumulative impacts of related projects (*Las Virgenes Homeowners Federation v. County of Los Angeles* [1986, 177 Ca.3d 300]). If an EIR or Negative Declaration relies on information from a supporting study that is available to the public, the EIR or Negative Declaration cannot be deemed unsupported by evidence or analysis (*San Francisco Ecology Center v. City and County of San Francisco* [1975, 48 Ca.3d 584, 595]). This document incorporates by reference appropriate information from the "Final Environmental Impact Report and Environmental Assessment for the "County of Imperial General Plan EIR" prepared by Brian F. Mooney Associates in 1993 and updates.

When an EIR or Negative Declaration incorporates a document by reference, the incorporation must comply with Section 15150 of the CEQA Guidelines as follows:

- The incorporated document must be available to the public or be a matter of public record (CEQA Guidelines Section 15150[a]). The General Plan EIR and updates are available, along with this document, at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- This document must be available for inspection by the public at an office of the lead agency (CEQA Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

- These documents must summarize the portion of the document being incorporated by reference or briefly describe information that cannot be summarized. Furthermore, these documents must describe the relationship between the incorporated information and the analysis in the tiered documents (CEQA Guidelines Section 15150[c]). As discussed above, the tiered EIRs address the entire project site and provide background and inventory information and data which apply to the project site. Incorporated information and/or data will be cited in the appropriate sections.

- These documents must include the State identification number of the incorporated documents (CEQA Guidelines Section 15150[d]). The State Clearinghouse Number for the County of Imperial General Plan EIR is SCH #93011023.

- The material to be incorporated in this document will include general background information (CEQA Guidelines Section 15150[f]). This has been previously discussed in this document.

II. Environmental Checklist

1. **Project Title**: Burrtec Commercial Water Well and Farming Project
2. **Lead Agency**: Imperial County Planning & Development Services Department
3. **Contact person and phone number**: David Black, Planner, (442) 265-1736, ext. 1746
4. **Address**: 801 Main Street, El Centro CA, 92243
5. **E-mail**: DavidBlack@co.imperial.ca.us
6. **Project location**: The Project site comprises approximately 250 acres within Imperial County (County), California, surrounding the Salton Sea Airport (Airport). The Project address is 1590 Air Crest Drive, which is located just west of Highway 86 on land owned by Burrtec Waste Industries, Inc. The Project would be within Section 5, Township 11 South, Range 10 East, San Bernardino Base Meridian, and Assessor Parcel Numbers (APNs) 017-970-009, 017-970-010, 017-970-011, and 017-970-012.
7. **Project sponsor's name and address**: Burrtec Waste Industries, Inc. 9400 Cherry Avenue, Building C, Fontana, CA 92335
8. **General Plan designation**: Recreation/Open Space
9. **Zoning**: S-1
10. **Description of project**: Burrtec Waste Industries, Inc. (Applicant) is proposing the Burrtec Commercial Water Well and Farming Project (Project or Proposed Project). The Project would be located on approximately 250 acres in Imperial County (County) surrounding the Salton Sea Airport. The heavy clay ground surrounding the Airport will require the addition of organics and amendments to support crop production. The Project would receive organics materials from regional diversion facilities and programs which will include composted green material, composted green/wood and food wastes, manures, dried Class A and Class A (Exceptional Quality (EQ)) biosolids (collectively referred to as compost). These materials are occasionally supplemented with gypsum and other common agronomic additives at the Salton City Composting/Biosolids Drying Operation, which would help to improve soil drainage and crop production and reduce water needs. The purpose of the Project is to support diversion of organics mandated by the State within Senate Bill (SB) 1383, resulting from regional recycling efforts. The proposed Project intends to use the water from the well to support these efforts. The water well would be approximately 600-750 feet deep and would produce up to approximately 200 acre-feet per year (AFY) of water. While no specific crop has been chosen at this time, some sort of feed crop would be grown that would change depending on the market. The Proposed Project's activities would require a Conditional Use Permit (CUP) 22-0002.
11. **Surrounding land uses and setting**: Surrounding the runway and Project site is mostly vacant, desert land. The Imperial County Sanitary Landfill is located just over two miles west of the Project site, and an approved subdivision is located directly northeast of the Project site, however, only six single family homes are currently developed in the subdivision and no recent construction has occurred. Recreation and open space land uses surround the Project site. Bureau of Land Management (BLM) owned land is located directly south and west of the Project site, and State owned land is located southwest of the Project site. Directly north of the site is zoned Low Density Residential Lot Size Minimum 0.5 Acres (R-1-L-.5), and the subdivision area has a mixture of Light Industrial (M-1), (Medium Commercial) C-2, Low Density Residential (R-1), Medium Density Residential (R-2), and Medium to High Density Residential (R-3) zoning.
12. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** California Department of Fish and Wildlife (CDFW), State Water Resources Control Board (SWRCB), Regional Water Quality Control Board (RWQCB), California Integrated Waste Management Board (CIWMB), California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), Imperial County Air Pollution Control District (ICAPCD), Airport Land Use Commission (ALUC).
13. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?** In

accordance with California Assembly Bill (AB) 52, Native American tribes with potential resources in the area were notified of the Project on January 18, 2023 and offered the opportunity for consultation. As of April 25, 2023, the Quechan Tribe has requested consultation.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code, Section 21083.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code, Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code, Section 21082.3 (c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Energy
☐	Geology /Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

ENVIRONMENTAL EVALUATION COMMITTEE (EEC) DETERMINATION

After Review of the Initial Study, the Environmental Evaluation Committee has:

☐ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Found that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Found that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE DE MINIMIS IMPACT FINDING: ☐ Yes ☒ No

EEC VOTES	YES	NO	ABSENT
PUBLIC WORKS	☐	☐	☐
ENVIRONMENTAL HEALTH SVCS	☐	☐	☐
OFFICE EMERGENCY SERVICES	☐	☐	☐
APCD	☐	☐	☐
AG	☐	☐	☐
SHERIFF DEPARTMENT	☐	☐	☐
ICPDS	☐	☐	☐

Jim Minnick, Director of Planning/EEC Chairman Date:

PROJECT SUMMARY

Burrtec Waste Industries, Inc. (Applicant) in coordination with Imperial County (County) proposes the Burrtec Commercial Water Well and Farming Project (Project or Proposed Project). The Project would be located on approximately 250 acres in Imperial County (County) surrounding the Salton Sea Airport. The heavy clay ground surrounding the Airport will require the addition of organics and amendments to support crop production. The Project would receive organics materials from regional diversion facilities and programs which will include composted green material, composted green/wood and food wastes, manures, dried Class A and Class A (Exceptional Quality (EQ))[1] biosolids (collectively referred to as compost). These materials are occasionally supplemented with gypsum and other common agronomic additives at the Salton City Composting/Biosolids Drying Operation, which would help to improve soil drainage and crop production and reduce water needs. The purpose of the Project is to support diversion of organics mandated by the State within Senate Bill (SB) 1383, resulting from regional recycling efforts. The proposed Project intends to use the water from the well to support these efforts. The water well would be approximately 600-750 feet deep and would produce up to approximately 200 acre-feet per year (AFY) of water. While no specific crop has been chosen at this time, some sort of feed crop would be grown that would change depending on the market. The Proposed Project's activities would require a Conditional Use Permit (CUP) 22-0002.

The County has prepared this Initial Study (IS) to provide the public and responsible agencies with information about the potential environmental impacts associated with implementation of the proposed Project. This IS includes a project-level analysis of the potential effects associated with the Project.

A. PROJECT LOCATION

The Project would be located on approximately 250 acres within Imperial County, California, surrounding the Airport (Figure 1, Project Site Location). The Project address is 1590 Air Crest Drive, which is located just west of Highway 86 on land owned by Burrtec Waste Industries, Inc. Regional access is provided by Highway 86, and Project site access is provided off of Highway 86, along Air Park Drive. The Project would be within Section 5, Township 11 South, Range 10 East, San Bernardino Base Meridian, and Assessor Parcel Numbers (APNs) 017-970-009, 017-970-010, 017-970-011, and 017-970-012.

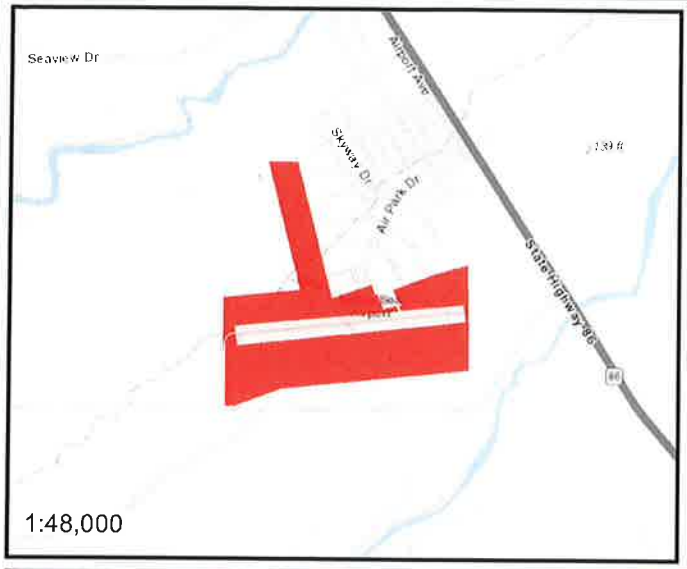
The Airport area is approximately 300 total acres. However, runway and hanger/office facilities and the associated flight safety zones surrounding the Airport runway, account for approximately 50 acres of the property, leaving 250 acres undeveloped as open desert.

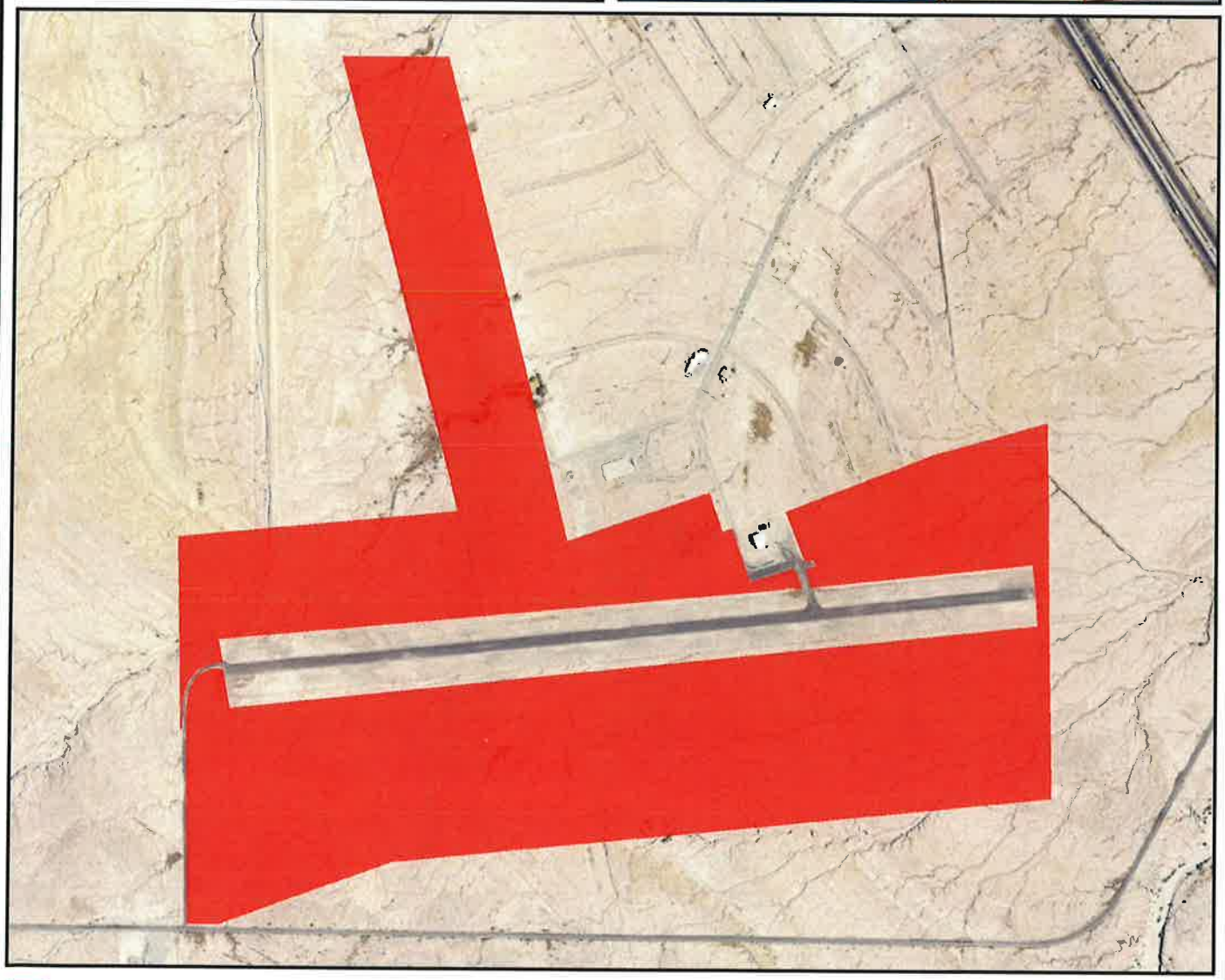
The Project area is zoned Open Space/Recreation (S-1) (Figure 2, Zoning Map). The General Plan Land Use designation for the entire Project is Recreation/Open Space (Figure 3, Land Use Designation Map).

C. CURRENT USE OF THE PROJECT SITE AND SURROUNDING AREAS

The Project site is located at the Airport and consists of 250 acres of the total 300 acres of the Airport property. The Airport, which was first constructed in the late 1950's, was constructed with a lighted main east/west runway 75 feet wide by 4,800 feet long. The runway lighting system was dismantled and is no longer operational. Also existing on site is a 3,000 square foot hanger, and a 1,250 square foot office with restroom facilities. Additionally, an existing parking lot is located on the site and contains parking for up to 15 vehicles. Air traffic in and out of the Airport is limited to periodic use by privately owned light aircraft and occasional rotary wing military aircraft from the regional

[1] Class A biosolids are essentially free of pathogens prior to land application. The metal contents requirements under the Part 503 Rule are the same for Class A and Class B biosolids. Class A biosolids products include lime pasteurized biosolids and fertilizer pellets. EQ biosolids have lower metals concentration requirements than either Class A or Class B biosolids and have the same pathogen levels as Class A biosolids. (Cal Recycle 2022)





Project Boundary (250 ac)

N

0 400 800 1,600

Feet

Figure 1
Burrtec Commercial Water Well and Farming Project
Project Location and Vicinity

Name: 21397 PLAN Fig 1 Project Location and Vicinity.Mxd
Print Date: 1/6/2023 2:59:41 PM Author: pcarlos

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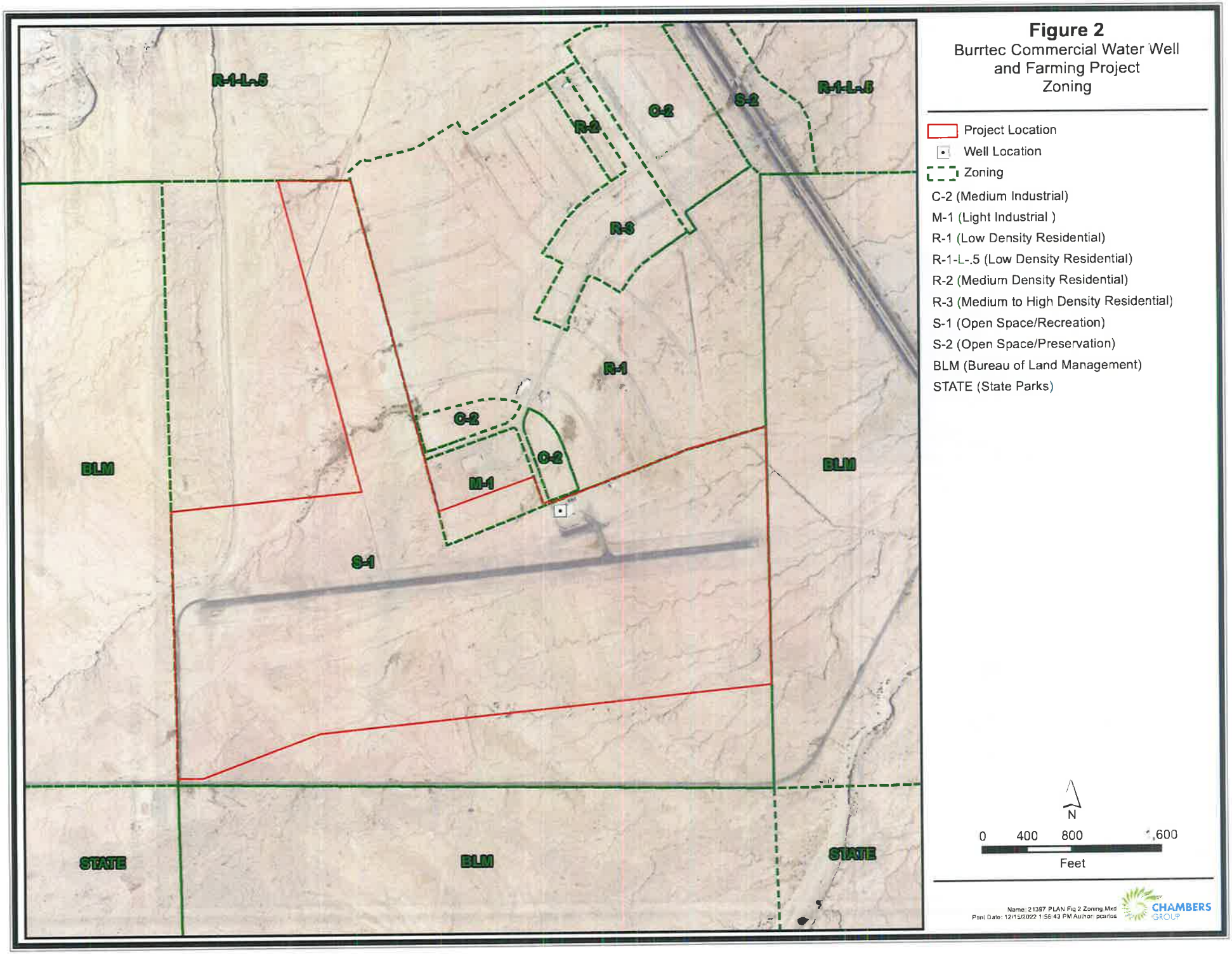

Figure 2

Burrtec Commercial Water Well and Farming Project
Zoning

- Project Location
- Well Location
- Zoning

C-2 (Medium Industrial)
M-1 (Light Industrial)
R-1 (Low Density Residential)
R-1-L-.5 (Low Density Residential)
R-2 (Medium Density Residential)
R-3 (Medium to High Density Residential)
S-1 (Open Space/Recreation)
S-2 (Open Space/Preservation)
BLM (Bureau of Land Management)
STATE (State Parks)

N

0 400 800 1,600

Feet

Name: 21397 PLAN Fig 2 Zoning.Mxd
Print Date: 12/15/2022 1:56:43 PM Author: pcarlos

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Figure 3
Burrtec Commercial Water Well
and Farming Project
Land Use Designation
Project Location
Well Location
Land Use Designation
Recreation/Open Space
Urban
N
0
400
800
1,600
Feet
Name: 21397 PLAN Fig 3 Land Use Designation.Mxd
Print Date: 12/15/2022 12:34:05 PM Author: pcarlos
CHAMBERS GROUP

training facilities that request use of the airport for practice maneuvers. The entire Airport area has a security fence around the existing runway and facilities. The Applicant owns and maintains the existing facilities. The land surrounding the runway and Project site is mostly vacant, desert land. The Imperial County Sanitary Landfill is located just over two miles west of the Project site, and an approved subdivision is located directly northeast of the Project site, however, only six single family homes are currently developed in the subdivision and no recent construction has occurred.

Recreation and open space land uses surround the Project site. Bureau of Land Management (BLM) owned land is located directly south and west of the Project site, and State owned land is located southwest of the Project site. Directly north of the site is zoned Low Density Residential Lot Size Minimum 0.5 Acres (R-1-L-.5), and the subdivision area has a mixture of Light Industrial (M-1), (Medium Commercial) C-2, Low Density Residential (R-1), Medium Density Residential (R-2), and Medium to High Density Residential (R-3) zoning.

C. PROJECT SUMMARY

The Proposed Project would include a commercial water well to support farming surrounding the Airport. The soils surrounding the Airport contain heavy clay and will require the addition of organics and amendments to support crop production. The Project would receive organics materials from regional diversion facilities and programs which will include composted green material, composted green/wood and food wastes, manures, dried Class A and (EQ) biosolids (collectively referred to as compost). These materials are occasionally supplemented with gypsum and other common agronomic additives at the Salton City Composting/Biosolids Drying Operation, which would help to improve soil drainage and crop production and reduce water needs. The proposed Project would add organics processing infrastructure to the County to conform to California's waste diversion regulations including SB 1383. Starting in 2022, Cal Recycle started enforcing local jurisdiction responsibilities under SB 1383, including providing organic material collection to residents and businesses. The Project would receive material from the Regional Organics Process and Diversion Operations with majority of materials processed through the Salton City Composting/Biosolids Drying Operation, which is located at the Salton City Landfill with occasional direct delivery from other processing facilities.

The Project's first phase would include converting the heavy clayey soils in fertile ground capable of supporting plant life. Preliminary estimates indicate the soil can be modified at approximately 9 acres per year, which will take up to 27 years to be fully operational on all 250 acres. Once fully operational, the Project would be receiving up to 200 dry tons per day or 73,000 tons per year (TPY) of compost.

The proposed Project intends to use the water from the well to support these efforts. The water well would be located 25 feet west of the Airport hanger and 75 feet south of the security fence line as shown in Figure 1. The water well would be approximately 600-750 feet deep and would produce up to approximately 200 acre-feet per year (AFY) of water. The well would be cased with stainless with a solid wall to 350 feet and then screened to the bottom. The well would include a 75 horsepower (hp) vertical turbine pump.

While no specific crop has been chosen at this time, it is anticipated that the Applicant will utilize a feed crop that may vary depending on the market. To analyze a worst case scenario, alfalfa has been assumed for purposes of this document.. Approximately one harvest per year would generate approximately 2,500 tons of feed. Assuming alfalfa, the feed would be sold to local cattle farmers. Regardless, any future crop would solely utilize water from the well and would not require any additional water beyond the 200 AFY.

The existing office building and parking lot would be utilized for Project operations. A layout of the Proposed Project is shown in Figure 4.

D. PROJECT CONSTRUCTION:

Construction of the commercial water well would begin when all necessary permits are obtained, expected to be 2023. Construction is expected to be complete in approximately one month. All work would occur in one phase, with work occurring during daylight hours over 5 or 6 days per week. Approximately four workers are anticipated at peak periods.

Construction workers will commute to the site and there will be no onsite housing for workers. Well drilling and construction work is expected to be Monday through Saturday 7:00 am to 3:00 pm. Paved parking is available at the airport office and hanger building for at least 15 vehicles.

Development of the farming portion of the Project will occur over a number of years and will depend on the availability of organic soil amendment materials. It is anticipated that work would progress on 2 to 4 acre parcels and would include ripping and disking of the soils as is generally typical of any agricultural operation. Once initial disking is complete, then organics would be spread on the ground then disked and tilled into the soil to a depth of 6 feet +/- to ensure deep root zone penetration with organics. Initial estimates indicate approximately 9 acres per year can be completed at the anticipated organics availability, which will take up to 27 years to be fully operational on all 250 acres.

No import or export of soil would be required. Very minimal water would be required during construction for drilling of the well. Construction employees would utilize the existing office restrooms and bottled water and / or the airport hanger facility which is serviced by Coachella Valley Water District domestic water supply. The Project will be constructed so that no off-site discharge of water will be allowed, and all of the runoff or discharge will be managed on-site.

Below is a list of construction equipment anticipated to be required for the Project:

Well Drilling

- Drill Rig
- Air compressors

Farming

- Ag Tractor
- Bulldozer
- Water Truck
- Soil Disc

E.PROJECT OPERATIONS

The farming operations will be staffed as needed Monday through Saturday from 5:00 am to 5:00 pm, however hours may vary depending on the outside temperature. Deliveries of organic material would occur Monday through Saturday from 6:00 am through 3:00 pm. Once fully operational, up to 10 trucks per day would make deliveries from the Salton City Compost/Drying Operation located at the Salton City Landfill. XX. Crops would be harvested once a year and would be trucked out within the County, worst case scenario would assume up to 100 trucks per year. Project operations would require four full-time employees.

Operational Water Use

As previously mentioned, crop production would not require water beyond the 200 AFY of water. While preparing the soil for crop production, water would be applied with a water truck that would be filled directly from the well. Once crops are planted, a water delivery system of pipes, agricultural canals, and/or automated spray system fed by electric pumps would be utilized depending on the final crop selection.

Potable water for employees would be in the form of water bottles and / or the airport hanger facility which is serviced by Coachella Valley Water District domestic water supply. Employees would utilize the existing office restrooms. Wastewater would utilize the existing system, which is connected to the public sewer system owned and operated by the Salton Sea Community Services District.

Hydrology and Water Quality

The Proposed Project would be required to comply with the State Water Resource Control Board, Water Quality Order Number 2004-0012-DWQ General Waste Discharge Requirements for the application of soil amendments to land in

agriculture activities. No off-site runoff would occur.

Utilities

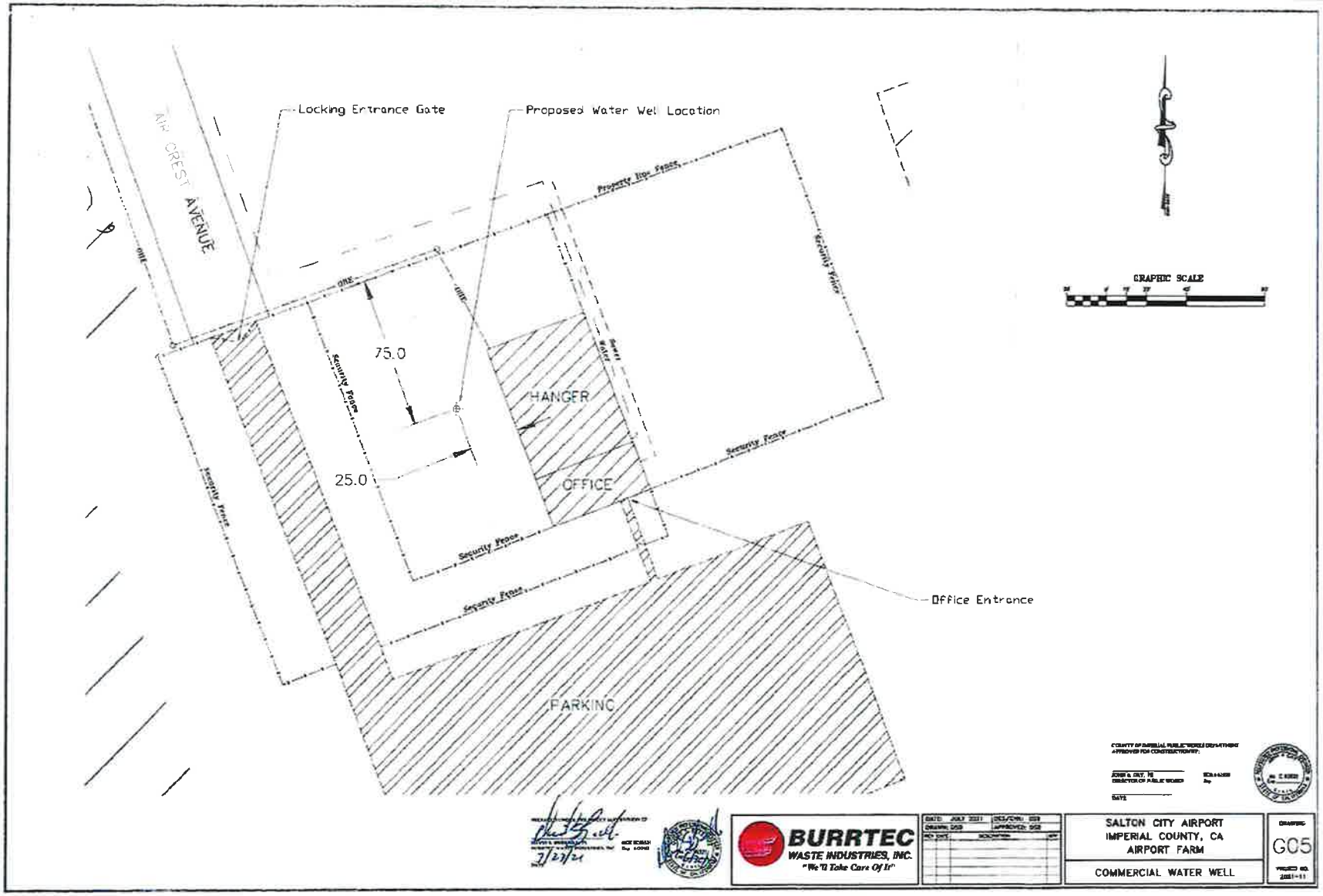
The Project would not require additional electricity beyond that for the well pump, which would be minimal. No natural gas would be required. Any additional increase in solid waste would be generated by employees only. Solid waste pickup within the Salton City community is voluntary and on an as needed basis. When solid waste pick up is needed, the Project would utilize a local waste service contractor.

Fire Protection and Safety

Water for fire protection would be supplied by the public water system owned and maintained by Coachella Valley Water District. Fire protection services would be through Imperial County Fire. The system will be designed in accordance with federal, state, and local fire codes, occupational health and safety regulations and other jurisdictional codes, requirements, and standard practices.

F. PROJECT DECOMMISSIONING AND ABANDONMENT

The projected life of the Project including the commercial water well drilling, soil building/improvement work is approximately XX years. At the end of operations, a Site Abandonment Plan will be prepared and implemented in conformance with the County and CUPA requirements, for consideration by the Planning Commission prior to Project approval. The Plan will describe the proposed equipment dismantling and site restoration program in conformance with the wishes of the respective landowners/lessors and requirements in effect at the time of abandonment and would be implemented at the end of Project operations.



NOTE:
Office, gate, and parking are existing.

Figure 4
Burrtec Commercial Water Well
and Farming Project
Project Site Plan

Name: 21397 PLAN Fig 4 Project Site Plan.Mxd
Print Date: 12/15/2022 12:52:38 PM Author: pcarlos

CHAMBERS GROUP

G. REQUIRED PERMITS AND APPROVALS

Lead Agency Approval

Imperial County Planning Department would be the lead agency for the proposed Project. The following permits would be required from the lead agency:

- Imperial County Planning Department – Conditional Use Permit

Reviewing Agencies

State Agencies

- California Air Resources Control Board (CARB)
- Native American Heritage Commission (NAHC)
- State Water Resources Control Board (SWRCB)
- California Department of Fish and Wildlife (CDFW)

Regional Agencies

- Airport Land Use Commission
- Regional Water Quality Control Board – Water Discharge Requirement
- Imperial County Air Pollution Control District – Permit to Construct and Permit to Operate
- Imperial County Public Works
- Imperial County Fire Department and Office of Emergency Services

H. OBJECTIVES

The purpose of the Project is to support diversion of organics mandated by the State within Senate Bill (SB) 1383, resulting from regional recycling efforts. The objectives of the Project are interrelated and are as follows:

- Assist Imperial County to conform to California's waste diversion regulations, including SB1383.
- Assist the State of California in reducing 75% of organic waste reduction from landfills by 2025 and enforcing implementation of a diversion program starting in 2023.
- Assist the State of California in achieving or exceeding its Renewable Portfolio Standard (RPS), Senate Bill 350, Senate Bill 100, and the California Global Warming Solutions Act (Assembly Bill 32) and greenhouse gas emissions reduction objectives.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

I. *AESTHETICS*

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista or scenic highway? ☐ ☐ ☐ ☒

According to the Imperial County Conservation and Open Space Element (2016), Section E, Number 2, no State scenic highways have been designated in Imperial County. In addition, according to Figure 9 of the Imperial County Conservation and Open Space Element the Proposed Project is mapped in an area designated to have a Low Value of Maintenance of Visual Quality. No scenic vistas or scenic highways would be impacted by this project. No impact is projected.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? ☐ ☐ ☐ ☒

The project location does not contain scenic resources such as trees, rock outcroppings, or historic buildings. No State scenic highways have been designated in Imperial County. According to Figure 9 of the Imperial County Conservation and Open Space Element the Proposed Project is mapped in an area designated to have a Low Value of Maintenance of Visual Quality. The project site does not contain scenic resources within a state scenic highway. No impacts to scenic resources are projected.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surrounding? (Public views are those that are experienced from publicly accessible vantage point.) If the Proposed Project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ☐ ☐ ☐ ☒

The Proposed Project would temporarily increase the amount of equipment onsite, temporarily changing the view. Upon completion of the Proposed Project, the undeveloped land would be converted to farmland. The site is privately owned and not accessible to the public. The Proposed Project would not substantially degrade public views of the site or its surroundings. According to Figure 9 of the Imperial County Conservation and Open Space Element the Proposed Project is mapped in an area designated to have a Low Value of Maintenance of Visual Quality. The Proposed Project would not degrade the visual character of surrounding public views. No impacts are projected.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ☐ ☐ ☐ ☒

No light or glare sources are currently located on-site, as noted in Section E, number 4 of the Imperial County Conservation and Open Space Element (2016). Additionally, implementation of the Proposed Project would not result in the construction of sources of substantial glare or light. No impact is projected.

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

II. *AGRICULTURE AND FOREST RESOURCES*

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:

a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

The Proposed Project would convert approximately 250 acres of undeveloped land into farmland. The Proposed Project would not convert Unique or Prime farmland to non-agricultural use. No impact is projected.

b)	Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒

The Proposed Project would remain consistent with permissible land use. According to the existing parcels consist of S-1 (Open Space) and M-1 (Light Industrial) zoning. The subject property is not subject to an existing Williamson Act Contract. Therefore, no impact would occur.

c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒

There are no timber resources on or near the Proposed Project. No impact is projected.

d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

The Proposed Project does not contain forest land. The subject property consists primarily of undeveloped desert land. No impact is projected

e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

The Proposed Project would not result in conversion of farmland to non-agricultural use. The Proposed Project would convert open space into agricultural use. The Proposed Project area contains no forest area. No impacts would occur.

III. *AIR QUALITY*

The Proposed Project site lies within the Air Basin, which is managed by the Imperial County Air Pollution Control District (ICAPCD). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Areas are classified under the Federal Clean Air Act as either "attainment" or "nonattainment" areas for each criteria pollutant, based on whether the NAAQS have been achieved or not. Attainment relative to the state standards is determined by the California Air Resources Board (CARB). The Air Basin has been designated by the Federal Environmental Protection Agency (EPA) as a nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. Currently, the Air Basin is in attainment with the NAAQS for CO, SO_2, and NO_2.

The ICAPCD has addressed each of three nonattainment pollutants in separate State Implementation Plans (SIPs). For ozone the most current
SIP is the Imperial County 2017 State Implementation Plan for the 2008 8-Hour Ozone Standard (2017 Ozone SIP), prepared by IPACD, September 2017, which was prepared to detail measures to reduce ozone precursors (i.e. ROG and NOx) within the County in order to meet the
2008 NAAQS for 8-hour ozone standard of 0.075 parts per million (ppm) by July 20, 2018. Although the Ozone 2017 SIP demonstrates that the
County met the 8-hour ozone standard 0.075 ppm by the July 20, 2018, requirement, it should be noted that in 2015 the EPA further strengthened its 8-hour ozone standard to 0.070 ppm, which will require an updated SIP for the County to meet the new ozone standard.

Since PM_{10} in the County has met the 24-hour NAAQS other than for exceptional events that include storms as well as from substantial PM10 concentrations blowing into the County from Mexico, the most current PM10 plan is the Imperial County 2018 Redesignation Request and Maintenance Plan for Particulate Matter less than 10 Microns in Diameter (2018 PM10 Plan), prepared by ICAPCD, October 23, 2018. The 2018
PM10 Plan shows that the monitoring of PM10 in the County found that other than exceptional events, no violation of the 24-hour PM10 NAAQS
of 150 µg/m3 occurred over the 2014 to 2016 time period. As such, the ICAPCD has requested the EPA to redesignate the Air Basin to maintenance.

For $PM_{2.5}$ the most current SIP is the Imperial County 2018 Annual Particulate Matter less than 2.5 Microns in Diameter State Implementation Plan (2018 $PM_{2.5}$ SIP), prepared by ICAPCD, April 2018, which was prepared to detail measures to meet the 2012 NAAQS for annual $PM_{2.5}$ standard of 12 $\mu g/m^3$ by the end of 2021 for the portion of Imperial County (approximately from Brawley to Mexico border) that is designated nonattainment. The $PM_{2.5}$ Plan found that the only monitoring station in the County that has recorded an exceedance of $PM_{2.5}$ is the Calexico Monitoring Station that is likely caused by the transport of $PM_{2.5}$ across the Mexico border. It is anticipated that the ICAPCD will submit a redesignation request for $PM_{2.5}$ in the near future.

Although ICAPCD is responsible for air quality planning efforts in the County, it does not have the authority to directly

regulate air quality issues associated with new development projects. Instead, this is controlled through local jurisdictions in accordance to CEQA. In order to assist local jurisdictions with air quality compliance issues, the ICAPCD has prepared the CEQA Air Quality Handbook (ICAPCD, 2017). The purpose of the Handbook is to assist lead agencies in evaluating a project's potential air quality impacts and provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant and how to mitigate these impacts. The Handbook provides the following standard measures for dust control and use of combustion equipment that all construction projects in the Air Basin are required to implement:

- All disturbed areas, including Bulk Material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material such as vegetative ground cover.
- All onsite and off-site unpaved roads will be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.
- All unpaved traffic areas one (1) acre or more with 75 or more average vehicle trips per day will be effectively stabilized and visible emission shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants and/or watering.
- The transport of Bulk Materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of Bulk Material. In addition, the cargo compartment of all Haul Trucks is to be cleaned and/or washed at delivery site after removal of Bulk Material.
- All Track-Out or Carry-Out will be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an Urban area.
- Movement of Bulk Material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers or by sheltering or enclosing the operation and transfer line.
- The construction of any new Unpaved Road is prohibited within any area with a population of 500 or more unless the road meets the definition of a Temporary Unpaved Road. Any temporary unpaved road shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.
- Use alternative-fueled or catalyst-equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
- Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set)

Since the Proposed Project site is located in an area that is known to experience high winds, the Proposed Project would also need to implement the fugitive dust reduction measures provided in the High Wind Exceptional Event Fugitive Dust Mitigation Plan for Imperial County, (ICAPCD, 2018). The High Wind Plan requires the implementation of various measures to limit fugitive dust emissions when sustained winds exceed 25 miles per hour.

Since the Proposed Project will utilize off-road diesel equipment that will emit air emissions, the Proposed Project will be required to obtain an ICAPCD permit under Rule 201. The Permit will require the applicant to demonstrate that all off-road equipment utilized are registered with CARB

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

or the ICAPCD. The Permit also requires the applicant to quantify the emissions created from the specific equipment utilized during construction
of the Proposed Project in order to ensure that the air emissions created from the off-road equipment utilized during construction activities are within the ICAPCD standards.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan? ☐ ☐ ☒ ☐

The Proposed Project would not conflict with the applicable air quality plans, which include the 2017 Ozone SIP, 2018 PM_{10} Plan, and 2018 $PM_{2.5}$ SIP that are described above. The CEQA Air Quality Handbook, prepared by ICAPCD, November 2007, requires large residential and commercial developments to develop an EIR.[2] Projects that have the potential to exceed the ICAPCD thresholds of significance for its operations are considered large developments and are required to demonstrate consistency with the regional air quality plans. The Proposed Project consists of development of water well and would not include any residential or commercial development, nor does the project require the preparation of an EIR. Accordingly, the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? ☐ ☐ ☒ ☐

Imperial County is designated by the United States Environmental Protection Agency (USEPA) as non-attainment for the ozone and particulate matter less than ten microns in diameter (PM10) National Ambient Air Quality Standards (NAAQS) with a portion of the County designated as non-attainment for the particulate matter less than 2.5 microns in diameter (PM2.5) NAAQS. Similarly, the area does not attain California ambient air quality standards (CAAQS) for ozone, PM10 and PM2.5. Air quality impacts are anticipated to be minimal due to fugitive dust associated with agricultural use.

The Applicant will implement BMPs during construction and operation to minimize potential impacts. PM10. Impacts would be less than significant.

Construction of the Proposed Project would create air emissions primarily from equipment exhaust and fugitive dust. Construction of the commercial water well would begin when all necessary permits are obtained, expected to be 2023. Construction is expected to be complete in approximately one month. All work would occur in one phase, with work occurring during daylight hours over five or six days per week. Approximately four workers are anticipated at peak periods. Well drilling and construction work is expected to be Monday through Saturday 7:00 am to 3:00 pm.

Development of the farming portion of the Proposed Project will occur over a number of years and will depend on the availability of organic soil amendment materials. It is anticipated that work would progress on two to four acre parcels and would include ripping and disking of the soils as is generally typical of any agricultural

[2] (Imperial County Air Pollution Control District)

operation. Once initial disking is complete, then organics would be spread on the ground then disked and tilled into the soil to a depth of six feet +/- to ensure deep root zone penetration with organics. Initial estimates indicate approximately nine acres per year can be completed at the anticipated organics availability, which will take up to 27 years to be fully operational on all 250 acres. No import or export of soil would be required.

The Proposed Project's emissions for the commercial well would not exceed ICAPCD's construction-related criteria pollutant thresholds. In addition, construction emissions would be short-term, limited only to the period when construction activity is taking place and all construction activities are required to comply with ICAPCD regulations for controlling fugitive dust emissions, including the standard regulations for all projects provided in the CEQA Handbook and summarized above as well as Rule 800 – General Requirements for Control of PM10; Rule 802; Rule 802 – Bulk Materials; Rule 803 – Carry-Out and Track-Out; Rule 804 – Open Areas; and Rule 805 – Unpaved Roads. As such, construction-related emissions would be less than significant for the Proposed Project.

Due to the nominal operational emissions created from the Proposed Project, it is also anticipated that the cumulative operational emissions created from the Proposed Project will be less than significant.

c)	Expose sensitive receptors to substantial pollutants concentrations?	☐	☐	☒	☐

As discussed above in (b), the criteria pollutant emissions for construction activities are assumed to be less than significant due to the limited amount of criteria pollutants created from construction activities. The nearest sensitive receptor consists of a single-family residence on Air Park Drive, located approximately 1,300 feet from the Proposed Project limits.

In addition, to the criteria pollutant emissions, construction activities have the potential to expose nearby sensitive receptors to toxic air contaminants (TACs), which would be created from the operation of diesel-powered equipment in the form of diesel particulate matter (DPM). According to SCAQMD methodology, health effects from TACs are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the Proposed Project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023, no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the Proposed Project.

Operational emissions would be limited to weekly or monthly vehicle trips to obtain pressure and temperature measurements well monitoring activities. As discussed above in (b), the criteria pollutant emissions have been calculated for operational activities, which were found to be within the ICAPCD's allowable operational

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

thresholds. Due to the limited amount of criteria pollutants created from operational activities and the distances to the nearest sensitive receptors to the proposed irrigation well, operational emissions would not expose sensitive receptors to substantial concentrations of criteria pollutants that are anticipated to create nominal levels of emissions and would not result in a substantial increase in traffic volumes, which have the potential to create CO hotspots. As such, operation of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒

Any diesel equipment used during construction of the Proposed Project would consist of mobile equipment that would not be stationary for a long period of time, allowing the odors to disperse rapidly and not impact any nearby receptors. Well construction activities would also result in the discharge of drilling mud that will be stored onsite in a containment basin. It is anticipated that the due to the climate of the project site, any drilling mud would evaporate and harden quickly, which upon hardening will cease the release of odors. Since well drilling is anticipated to be temporary, the odors would be temporary, and the odor impacts would be likely not be noticeable at the nearest sensitive receptors. Additionally, farming practices will not result in any permanent odors and any odors generated from the farming practice will dissipate quickly due to the prevailing winds. Therefore, construction and operation of the Proposed Project would not create objectionable odors affecting a substantial number of people, and impacts would be less than significant.

IV. *BIOLOGICAL RESOURCES*

Would the project:

a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Surveys to document special status flora and fauna species were conducted January 2023 by Chambers Group, Inc. biological staff. All detected wildlife and botanical species were recorded, as were observed vegetation communities within and adjacent to the survey corridors. Wildlife species were detected either by observation, by vocalization, or by sign (e.g., tracks, burrows, scat). The botanical inventory was floristic in nature, meaning that all plants observed were identified to the taxonomic level needed to determine whether they were special- status plant species. Vegetation communities were classified according to Holland (1986).

Vegetation communities consisted primarily of Sonoran creosote bush scrub and desert saltbush scrub. Eight special- status plant species were observed within the Proposed Project area during the surveys. A list of plant species observed during the field surveys is provided in Appendix A.

Special Status Plant Species

A total of 15 special-status plant species have potential to occur within the Proposed Project area. Of the 15 plant species considered to have a potential to occur, one has a high potential to occur, 6 species have a

moderate potential to occur, and one species have a low potential to occur. One special status species, Salton milk vetch, was found within the survey area and is considered present. None of the special status plant species with potential to occur are federally or state listed species.

Special Status Wildlife Species

Literature review identifies a total of 17 wildlife species with the potential to occur within the Proposed Project area. Of the 17 wildlife species, one species is confirmed present within the Proposed Project area, and one species is likely present.

Two adult burrowing owls (BUOWs) with active burrows were observed within the project site. BUOWs are considered present within the project site. In addition, Flat-tailed horned lizard was not observed in the project site; however, high-quality habitat is present, and this species has been observed within less than a mile of the project site. Therefore, this species is considered to have a high potential to occur within the site.[3]

The Applicant will secure all the necessary permits, memorandums of understanding, or permissions identified in Section II of this document. Impacts to special- status species would be avoided where feasible, and where not feasible, impacts would be reduced via implementation of the mitigation measures identified below.

Due to the potential for the Proposed Project to impact special- status species, the following mitigation measures would be implemented to ensure that impacts to special- status species would be reduced to a level below significant. Following implementation of the mitigation measures identified below would result in a less than significant impact associated with special- status species.

Based on the presence of BUOW, likely presence of Flat-tailed horned lizard, and potential for special-status plants, the Proposed Project includes the following measures to avoid and/or minimize potential impacts to regulated special status plants, wildlife, and habitat, listed below:

MM-BR-1: Prior to the start of Project activities, an environmental education program will be provided for all project personnel. The education program will include the following: (1) the potential presence of covered species and their habitats, (2) the requirements and boundaries of the project, (3) the importance of complying with avoidance and minimization measures, (4) environmentally responsible construction practices, (5) identification of special status resource areas in the field, and (6) problem reporting and resolution methods.

MM-BR-2: Protocol surveys for BUOW in compliance with the CDFW Staff Report on BUOW Mitigation (CDFG, 2012) in suitable habitat for this species should be conducted prior to construction activities. According to the protocol, an additional preconstruction or avoidance/take survey will be conducted for the BUOW within 30 days of construction in all suitable habitat within the proposed Project.

MM-BR-3: Protocol surveys for flat-tailed horned lizard should be conducted prior to construction activities. Although no CDFW protocol for flat-tailed horned lizard currently exists, according to the Flat- tailed Horned Lizard Rangewide Management Strategy (May 1997), flat-tailed horned lizards are most active between March and October; therefore, surveys should be conducted during this period when flat-tailed horned lizards are most active.

[3] *Ibid*

MM-BR-4: If any ground disturbing activities are planned during the BUOW nesting season (approximately February 1 through August 31), avoidance measures shall include a no construction buffer zone of a minimum distance of 250 feet, consistent with the Staff Report on BUOW Mitigation (CDFG, 2012). Compliance shall be maintained with CDFW BUOW mitigation guidelines as detailed in the Staff Report on BUOW Mitigation (CDFG, 2012) or more recent updates, if available.

MM-BR-5: If vegetation disturbance or other Project activities will occur during the bird breeding season (February 15-August 31), a qualified biologist shall conduct a preconstruction nesting survey to ensure that no active nests are present within or adjacent to the Survey Area. If an active nest is observed that may be impacted by Project-related activities, avoidance measures shall be implemented to avoid impacting the nest. Avoidance measures include delaying construction within the immediate vicinity of the active nest until the young have fledged or naturally failed, or instituting a buffer around the nest that prohibits construction activities to occur, but allows construction to continue outside the buffer. The appropriate avoidance buffer is to be determined by the qualified biologist based on vegetative cover, topography, stage of nest or young development, and species type.

MM-BR-6: A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to drainage features. The biological monitor will be present throughout Project activities to conduct daily sweeps for flat-tailed horned lizard and inspect compliance with project protection measures. If a flat-tailed horned lizard or other special status species is found, the species shall be relocated out of harm's way whenever feasible. Any mortalities shall be reported to the agencies and County of Imperial. A final monitoring report will be submitted to CDFW and County of Imperial. The annual report shall include a summary of pre- construction surveys, biological monitoring, avoidance measures implemented, and whether the avoidance measures were effective.

MM-BR-7: Prior to construction, and within the appropriate blooming period, a qualified biologist will conduct a focused rare-plant survey for: gravel milk vetch (typically blooms February through June), Abrams' spurge (typically blooms September through November), Orcutt's woody-aster (typically blooms from March through April), Peirson's pincushion (typically blooms from March through April), brown turbans (typically blooms from March through April), hairy stickleaf (typically blooms from March through May), and sand food (typically blooms from April through June). If these species are identified, will be flagged and identified, and surrounded with a 10-foot no construction buffer. If federally or State-listed plant species are identified, the biologist will consult with CDFW and USFWS to determine appropriate course of action, which may include soil/seedbank collection and/or translocation.

With inclusion of the above avoidance, minimization and/or mitigation measures, The Proposed Project would not result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Impacts from the Proposed Project to special status species, including plants and wildlife, would be less than significant.

b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Chambers Group, Inc. biological staff performed pedestrian survey and jurisdictional delineation on January 13, 2023, included as Appendix A. The Proposed Project will be designed to avoid all the water features that occur within the site. Likewise, temporary impacts will be avoided through the use of BMP's; therefore, no impacts to Waters of the State or Waters of the U.S. are anticipated. The Proposed Project does not occur within a federally designated critical habitat unit.[4]

The project site features eight vegetation communities: Fourwing Saltbush Scrub, Disturbed Fourwing Saltbush Scrub, Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, Desert Pavement, Tamarisk Thickets, Mesquite Thickets, and Anderson's Boxthorn Scrub. The project site also features areas of Bare/Disturbed ground, a Man- Made Berm, and Developed areas. All vegetation communities outside of jurisdictional features are expected to be permanently impacted.[5]

The Proposed Project will remain in compliance with federal, state, and county ordinances protecting special status resources. The Proposed Project includes protection measures to avoid and minimize potential negative impacts to special status resources. The Proposed Project would not impact riparian habitat or other sensitive natural community. As described above in (a), the Proposed Project includes mitigation measures MM-BR1 through MM-BR-7.

Additionally, the Proposed Project would not result in temporary or permanent impacts to Waters of the U.S. or Waters of the State. Impacts would be potentially significant unless mitigation is incorporated.

c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

Chambers Group, Inc. biological staff performed a pedestrian survey and jurisdictional delineation for the project site (Survey Area) on January 13, 2023 (Appendix A). No wetland features (*e.g.*, wetland plants, hydric soils) were identified within the Survey Area. Because this region only receives approximately 3 inches of rain a year, the washes identified within the Survey Area are most often dry and do not support distinct riparian/wetland vegetation.[6]

The Biological Resources Report and Jurisdictional Delineation identify several mapped drainage features run through the project site, including three blue-line riverine systems at the project site. However, project construction and operational activities would avoid these areas. No impacts would occur to mapped drainage features or blue-line riverine features.

There are several erosional and sheet flow features that occur throughout the Survey Area. Many of the erosional features are present as small gullies, which are forms of longitudinal (incising) erosion. The erosional cuts are often deeper than they are wide, with very steep banks and small beds. Gullies are younger than streams in geologic age and lack an OHWM. They are commonly found in this area, which consists of low-density vegetative cover and soils and thus subject to increased effects from erosion. Once a gully is formed, it conveys sheet flow from infrequent and short duration flows. Based on the field survey, these

[4] *Ibid*

[5] *Ibid*

[6] *Ibid*

erosional features terminate before connecting to any other mapped hydrological features.

The Proposed Project will be designed to avoid all the water features that occur within the site and temporary impacts will be avoided through the use of BMP's; therefore, no impacts to Waters of the U.S. or Waters of the State are anticipated to occur as a result of Project activities, thus regulatory permits should not be required for impacts to Waters of the U.S. or Waters of the State.

Accordingly, the Proposed Project would not impact federally protected wetlands, drainages, or riverine systems. The Proposed Project would not result in temporary or permanent impacts to Waters of the U.S. or Waters of the State.

The Proposed Project includes MM-BR-6, described above in (a). Accordingly, no impacts would occur.

d)	Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Wildlife corridors comprise areas connecting suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyons, drainages, ridgelines, or areas with dense vegetation cover can provide corridors for wildlife travel. Wildlife corridors are important to mobile species because they provide access to individuals to find shelter, mates, food, and water; allow the dispersal of individuals away from high population density areas; and allow immigration and emigration of individuals to other populations, providing for gene flow between populations. Three large washes present on site (Drainages 1, 2 and 4) and the smaller wash (Drainage 3), identified in the Biological Resources Report. The drainages and on site washes serve as wildlife corridors providing a migration pathway for small to large mammal species (e.g., black-tailed jackrabbits, mule deer, and coyotes) from the surrounding areas including the mountain ranges to the west to water sources such as the Salton Sea. However, project activities and access roads will not impact drainage features within the site. These areas would be protected in place; no impacts would occur.[7] The Proposed Project would thus avoid impacts to migration corridors and allow migration of wildlife through the site. Therefore, potential impacts to wildlife migration corridors would be potentially significant unless mitigation is incorporated.

Accordingly, the Proposed Project includes measures MM-BR-1 through MM-BR-7, described in (a) above. With incorporation of these measures, potential impacts of the Proposed Project would be less than significant.

e)	Conflict with any local policies or ordinance protecting biological resource, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

The County of Imperial General Plan Open Space Conservation Policy requires detailed investigations to be conducted to determine the significance, location, extent, and condition of natural resources in the County. If any rare, sensitive, or unique plant or wildlife habitat would be impacted by a project, the County must notify the agency responsible for protecting plants and wildlife before approving the Proposed Project.

[7] *Ibid*

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

Construction of the Proposed Project is not anticipated to conflict with any local policies or ordinances protecting biological resources during construction or operation of the Proposed Project. Consistent with the County's Open Space Conservation Policy, appropriate studies have been prepared for the site. Additionally, implantation of Mitigation Measures MM-BIO-1 through MM-BIO-7 would reduce any potential impacts to rare, sensitive, or unique plant or wildlife habitat to less than significant; therefore, this impact is potentially significant unless mitigation is incorporated.

f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No Habitat Conservation Plan has been adopted for the region. Therefore, the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan.[8] No impact is projected.

V. *CULTURAL RESOURCES*

Would the project:

a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐

Chambers Group, Inc. completed an Archaeological Survey Report, dated March 2023, for the Proposed Project, included as Appendix B. Based on the Archeaological Survey Report and corresponding pedestrian survey, Chambers Group archaeologists identified 40 cultural resource localities during the systematic survey of the project site. Two newly identified resources were in close proximity to previously recorded archaeological sites, and these new data have been included in updates to those sites (P-13-017175 and -017184).

A total of 17 resources were identified as isolated occurrences (IO or isolates). Isolates consist of fewer than three artifacts within a defined area (not more than 30 meters from each artifact). A total of 21 resources were identified as sites. While an archaeological site usually consists of three or more artifacts, single features, such as stacked rock cairns or isolated thermal features, are considered sites.[9]

All 17 identified isolates are prehistoric lithic resources, which represent a total of 26 items. These consists predominately of lithic debitage, such as primary flakes (11 of a total of 26 items, or 42 percent), secondary flakes (5 of 26, or 19 percent), or angular waste (2 of 26, or 8 percent). Other items include assayed cobbles (these generally exhibit fewer than four flake removals and are indicative of a rejected lithic source) (3 of 26, or 12 percent), cores (3 of 26, or 12 percent), and scrapers (2 of 26, or 8 percent).[10]

A total of 16 of the 40 localities identified are prehistoric-period archaeological sites. These comprise eight lithic scatters (50 percent), five artifact scatters (31 percent), two habitation sites (12 percent), and a food resource

[8] (California Department of Fish and Wildlife)

[9] (Chambers Group, Inc.)

[10] *Ibid*

processing site (6 percent).[11]

A total of five historic-period localities were identified within the project site. Two of the resources are stacked sandstone cairns. These are temporally ambiguous as cairn construction transcend temporal assignments and are found in both prehistoric- and historic-period settings. However, the condition and context of these two resources appear to favor an historic-period construction. Two deposits were identified as trash scatters. Both appear to be one-time events associated with a particular activity taking place within the project site. One appears to be associated with construction or maintenance of the Salton Sea Airport runway apron, and one appears to be associated with a gravel or road construction operation. The last deposit appears to be a 1960s-era campsite likely associated with game-hunting activity.

No recorded fossil localities have been identified within a one-mile radius of the project site. Additionally, no paleontological materials were observed during the survey. The SDNHM, however, notes that sensitive late Pleistocene- to Holocene-age Lake Cahuilla Beds exist within the Proposed Project, and subsurface ground-disturbing activities have the potential to impact sensitive paleontological resources.

Additionally, the records search and archaeological survey resulted in the identification of 118 resources within 1/4-mile radius of the project site. In addition to the 15 previously recorded sites and isolates within the project site, Chambers Group identified a further forty new sites and isolates during the survey. Furthermore, a previously recorded resource located outside the project site was found to extend beyond its prior recorded limits and transect the project site.

The preferred mitigation is avoidance of significant cultural resources is through project design. Resources found to be not significant will not require mitigation. If avoidance of direct impacts to resources CGI-21397-07, -10, -13, -14, -32, -37, and P-13-017175 and -017176, or other previously unknown eligible or potentially eligible resource(s), is not feasible, the County will ensure that potentially impacted archaeological sites are assessed for significance, as defined by PRC § 21083.2 or CEQA Guidelines § 15064.5 et. seq., through implementation of Phase II investigations. Should Phase II testing of these, or any previously unknown archaeological site, exhaust the data potential of the site, Project impacts will be reduced to a less than significant level by adopting the recommended mitigation measures below (MM-CR-1 through MM-CR-5).

Impacts to an archaeological site found to be significant under CRHR Criterion 4 may be mitigated through a Phase III data recovery program. For such a site, prior to any ground-disturbing activities, a detailed archaeological treatment plan shall be prepared and implemented by a Qualified Archaeologist. Data recovery investigations shall be conducted in accordance with the archaeological treatment plan to ensure collection of sufficient information to address archaeological and historical research questions, and results shall be presented in a technical report (or reports) describing field methods, materials collected, and conclusions. Additional testing and/or data recovery phases may involve additional excavation and/or more detailed recordation of resources or more comprehensive archival research. Any cultural material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection. If a resource is found to be significant under CRHR Criterion 1, 2, or 3, alternative mitigation measures may be developed by the Qualified Archaeologist, in consultation with the County.

Based on the above findings, the Proposed Project would implement the following mitigation measures:

[11] *Ibid*

MM-CR-1: A Qualified Archaeologist, meeting the Secretary of the Interior Standards or County standards, whichever is greater, shall be retained to prepare a Cultural Resources Management Plan (CRMP) in advance of project construction. The CRMP shall be prepared to include a Phase II significance identification and treatment plan, per PRC § 21083.2 and CEQA Guidelines § 15064.5 et. seq., to evaluate all cultural resources that cannot be avoided. For those resources that are identified as a significant cultural resource through the Phase II evaluation, and which cannot be avoided, a Phase III data recovery program shall be prepared. The data recovery plan shall make provisions for adequately recovering the scientifically consequential information from and about the resource, and shall be prepared and adopted prior to any excavation being undertaken. Following the data recovery plan, the Qualified Archaeologist shall prepare a Mitigation Monitoring Reporting Plan.

MM-CR-2: All initial ground-disturbing work within 100 feet (30 meters) of all previously identified significant cultural resources shall be monitored by an archaeological specialist (archaeological monitor) proficient in artifact and feature identification in monitoring contexts. Prior to initial ground-disturbing work the Qualified Archaeologist, and/or archaeological monitor, shall be present at the Proposed Project construction-phase kickoff meeting. The Qualified Archaeologist, and/or archaeological monitor, shall conduct initial Worker Environmental Awareness Program (WEAP) training to all construction personnel, including supervisors, present at the start of the Proposed Project construction work phase, for which the Applicant, or their designated Contractor, and all subcontractors shall make their personnel available. A tribal monitor, if required following consultation with the County, shall be provided an opportunity to attend the pre-construction briefing, if requested. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to archaeological resources and maintain environmental compliance. This WEAP training will educate the monitor(s) of construction procedures to avoid construction-related injury or harm. This training may be performed periodically, such as for new personnel coming on to the Proposed Project as needed.

MM-CR-3: The Applicant, or their designated Contractor, shall provide the Qualified Archaeologist with a schedule of initial potential ground-disturbing activities. A minimum of 48 hours will be provided to the Qualified Archaeologist prior to the commencement of any initial ground-disturbing activities, such as vegetation grubbing or clearing, grading, trenching, or mass excavation.

MM-CR-4: The archaeological monitor, under the direction of the Qualified Archaeologist, shall observe initial ground-disturbing activities and, based on the initial observations and in consultation with the Qualified Archaeologist, may adjust the monitoring approach as needed to provide adequate observation and oversight. All on-site monitors will have authority to temporarily halt and/or redirect construction to allow for recordation and evaluation of any and all finds. The archaeological monitor will maintain a daily record of observations to serve as an ongoing reference resource and to provide a resource for final reporting upon completion of the Proposed Project.

MM-CR-5: At the completion of all ground-disturbing activities, the Qualified Archaeologist shall prepare an Archaeological Resources Monitoring Report summarizing all monitoring efforts and observations, as performed, and any and all prehistoric or historic archaeological finds, as well as providing follow-up reports of any finds to the South Coastal Information Center (SCIC), as required.

Per CEQA Guidelines, the Proposed Project should be designed to avoid impacts to significant cultural resources within the project site whenever feasible. Given that Chambers Group did identify new cultural resources during the survey of the project site, the mitigation measures identified above are required to ensure that potential impacts to cultural resources are reduced to less than significant.

With implementation of the above mitigation measures, potential impacts would remain below the level of significance; thus, the Proposed Project would not cause a substantial adverse change in the significance of

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

a historical resource pursuant to §15064.5. Impacts would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ☐ ☒ ☐ ☐

Based on results of the Archeological Survey Report, the Proposed Project would not result in a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5; however, impacts to unknown archaeological resources could occur. Implementation of the mitigation measures MM-CR-1 through MM-CR-6; and MM-PR-1 through MM-PR-5 would reduce any potential impacts associated with an archaeological resource to less than significant.

c) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☒ ☐ ☐

Based on a records search requested from the SDNHM the project site has paleontological sensitivity. Accordingly, the Applicant will retain a Qualified Paleontologist, and a paleontological monitor will be present on-site during construction actions that may encounter sensitive resource-bearing deposits (MM-PR 1).

In the event of potential discovery of human remains, the Proposed Project will include the following measure:

MM-CR-6: In the event that human remains are discovered during ground-disturbing activities, the Proposed Project shall comply with California HSC § 7050.5, CEQA § 15064.5, and California PRC § 5097.98 (NPS 1983). If human remains are found during ground-disturbing activities, State of California HSC § 7050.5 states that no further disturbance shall occur until the County Medical Examiner–Coroner has made a determination of origin and disposition pursuant to PRC § 5097.98. In the event of an unanticipated discovery of human remains, the County Medical Examiner–Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the Medical Examiner–Coroner shall notify the NAHC, which shall identify and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials (NPS 1983).

Therefore, with implementation of the above mitigation measures, potential impacts with respect to disinterred human remains would be reduced to less than significant.

VI. *ENERGY*

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? ☐ ☐ ☒ ☐

Construction of the Proposed Project would result in the significant need for energy resources. Energy demands would not substantial. Operation of the well site would not result in wasteful, inefficient, or unnecessary consumption of energy resources; the well associated with the Proposed Project would not involve the construction of structures (residential, commercial, or industrial) that would require daily usage of

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energy resources. This impact is less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ☐ ☐ ☒ ☐

The Proposed Project would not conflict or obstruct a renewable energy or energy efficiency plan. The Proposed Project would remain consistent with the County of Imperial prepared a Renewable Energy and Conservation Element.[12] Therefore, impacts would be less than significant with regard to energy usage and renewable energy plans.

VII. *GEOLOGY AND SOILS*

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving: ☐ ☐ ☐ ☐

1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? ☐ ☐ ☒ ☐

In accordance with the Alquist-Priolo Special Studies Zone Act (Chapter 7.5, Division 2, Public Resources Code, State of California, effective May 4, 1975) the Office of State Geologist delineated Special Study Zones which encompass potentially and recently active traces of four major faults (San Andreas, Calaveras, Hayward and San Jacinto). The Alquist-Priolo Special Study Zone Act is enforced by the County to assure that homes, offices, hospitals, public buildings, and other structures for human occupancy which are built on or near active faults, or if built within special study areas, are designed and constructed in compliance with the County of Imperial Codified Ordinance.

Construction of the Proposed Project would not result in the construction of any structure intended for human occupancy. Additionally, the Proposed Project area is not located within or adjacent to any earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (County of Imperial 1997). There would be no impacts relating to the rupture of a known earthquake fault.

Based on the California Department of Conservation data, the project site is not located on or within 5 miles any known faults.[13] All construction shall comply with the most current California Uniform Building Code (Section 1626 through 1635), requiring development to incorporate the most stringent earthquake resistant measures. The Proposed Project scope does not include habitable structures. Therefore, with adherence to the above reference codes, impacts would be less than significant.

[12] (Imperial County Planning and Development Department)

[13] (California Department of Conservation)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
2) Strong Seismic ground shaking?	☐	☐	☒	☐

California rests on the boundary between the North American Plate and the Pacific Plate. The San Andreas Fault system is located where the northwesterly drifting Pacific Plate grinds along and is subducted by the southwesterly drifting North American Plate. Baja, and California west of the fault system, are part of the Pacific Plate and move northwest compared to the rest of California and North America.

Southern California is a seismically active region, therefore it is highly likely that regional earthquakes would occur that could affect the Proposed Project site (County of Imperial 1997); though, as noted in section a) 1), no active faults are underlaying or adjacent to the Proposed Project. Design and construction of the Proposed Project would be required to conform to the specific mandated structural design requirements to protect against strong seismic shaking, the potential impacts due to strong seismic ground shaking are a less than significant impact.

3) Seismic-related ground failure, including liquefaction and seiche/tsunami?	☐	☐	☒	☐

The geology that makes up Imperial County includes young, unconsolidated sediments of the Salton Trough that are subject to failure during earthquakes, especially throughout the irrigated portions of Imperial Valley where the soil is generally saturated. Liquefaction, and related loss of foundation support, is a common hazard in these areas (County of Imperial 1997).

A seiche is a to and from vibration of a body of water like the slopping of water in a jolted basin. Once initiated, the water body continues to oscillate independently. Seiches can be triggered by seismic events such as earthquakes. The most likely location for a significant seiche to occur is the Salton Sea. While there have been a number of seismic events since the formation of the Salton Sea, no significant seiches have occurred to date (County of Imperial 1997).

The irrigation associated with the Proposed Project would not be not located within an irrigated portion of Imperial Valley, causing the risk of liquefication in the area to be low. Additionally, despite the Proposed Project area being close proximity to the Salton Sea, seiches in the area are unlikely. Additionally, the Proposed Project is approximately 80 miles from the nearest ocean, the Pacific Ocean, and therefore are too far to be at risk of experiencing a tsunami. Impacts associated with seismic-related ground failure, including liquefaction and seiche/tsunami are less than significant.

4) Landslides?	☐	☐	☒	☐

A landslide refers to slowly to very rapidly descending rock or debris caused by the pull of gravity. Landslides affect humans in many ways. A very rapid landslide could result in casualties and devastating property damage while a slow landslide could result in the nuisance of having a fence slowly pulled apart. The cost in lives and property from landslides is surprisingly high. According to the U.S. Geological Survey, more people in the United States died from landslides during the last three months of 1985 than were killed by all other geologic hazards, such as earthquakes and volcanic eruptions. The damage to property from landslides each year exceeds the cost of earthquake damage for the last twenty years.[14]

14 (County of Imperial)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

The Proposed Project is located in a relatively flat portion of Imperial County and are not identified as an area at risk of landslide (County of Imperial 1997); therefore, impacts associated with landslides are considered less than significant.

b) Result in substantial soil erosion or the loss of topsoil? ☐ ☒ ☐ ☐

Erosion is the removal of rock fragments or soil by the action of running water, glacial ice, or wind. Human activities can accelerate erosion. The areas in Imperial County that are most subject to erosion are the Algodones Sand Dunes paralleling the East Mesa and Superstition Mountain, and the Chocolate, Picacho, Cargo Muchacho, and Coast Range Mountains. The remainder of Imperial County is generally flat and experiences low levels of natural erosion.[15]

Although the Proposed Project is located in a relatively flat area identified as having low erosion potential (County of Imperial 1997), the preparation of a SWPPP would be required due to the size of the disturbed area exceeding one acre. The SWPPP would identify best management practices (BMPs) that would reduce any impacts associated with soil erosion or loss of topsoil; therefore, this impact is less than significant.

MM-GEO-1: Applicant will prepare a SWPPP consistent with the requirements of the California State Water Resources Control Board (SWRCB) to reduce the potential for water pollution and sedimentation from proposed Project activities. The SWPPP will be project specific and expressly address site runoff, assuring that project runoff would not affect or alter drainage patterns to sensitive habitat.

c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse? ☐ ☐ ☒ ☐

Subsidence is the gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peat oxidation, and not the result of a landslide or slope failure. Ground surface effects related to subsidence are generally restricted to long surface structures such as canals, drains, and sewers, which are sensitive to slight changes in elevation. Subsidence from earthquakes and other activities can disrupt drainage systems and cause localized flooding.

According to Department of Conservation Regulatory Maps, the project site is not located on an unstable land unit, or subject to erosion, landslide, liquefaction, subsidence, or collapse.[16] The Proposed Project would comply with the California Department of Water Resources (DWR) Guidelines and Imperial County Ordinance Title 9, Division 21 – Water Well Regulations. Adherence to DWR guidelines and the County Ordinance regulating water wells reduce any impacts associated with subsidence; therefore, this impact is less than significant.

15 *Ibid*
16 *Ibid*

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property?	☐	☐	☒	☐

Expansive soils are soils that expand when water is added and shrink when they dry out. This continuous change in soil volume can cause structures built on this soil to move unevenly and crack; expansive soils are commonly associated with clay rich soils.

The soils underlaying the Project Proposed site are sedimentary rock. Additionally, construction of the Proposed Project would not result in the establishment of permanent structures. Therefore, impacts associated with expansive soils are less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

The Proposed Project would not require the use of septic systems or alternative wastewater systems to accommodate wastewater needs. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Chambers Group, Inc. prepared an Archaeological Resource Survey Report for the Proposed Project, dated March 2023, for the Proposed Project (Appendix B). Based upon literature review, the project site contains no known paleontological resources or unique geologic features; however, the possibility of uncovering unknown paleontological resources is present to the high potential for the site to contain paleontological resources. With implementation of measures MM-PR-1 through PR-5, as follows, potential impacts to paleontological resources would be reduced to less than significant.

MM-PR-1: The Applicant shall retain the services of a Qualified Paleontologist and require that all initial ground-disturbing work be monitored by someone trained in fossil identification in monitoring contexts. The Qualified Paleontologist shall prepare a Paleontological Resource Mitigation Plan to be implemented during ground-disturbing activity for the proposed Project. This program should outline the procedures for paleontological monitoring, including extent and duration; protocols for salvage and preparation of fossils; and the requirements for a final mitigation and monitoring report. The Qualified Paleontologist and a paleontological monitor shall be present at the Proposed Project construction- phase kickoff meeting.

MM-PR-2: Prior to commencing construction activities and thus prior to any ground disturbance in the project site, the Qualified Paleontologist and paleontological monitor shall conduct initial WEAP training to all construction personnel, including supervisors, present at the start of the Proposed Project construction work phase, for which the Applicant, or their designated Contractor, and all subcontractors shall make their personnel available. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to paleontological resources and maintain environmental compliance and shall be performed periodically for new personnel coming on to the Proposed Project as needed.

MM-PR-3: The Applicant, or their designated Contractor, shall provide the Qualified Paleontologist with a schedule of initial potential ground-disturbing activities. A minimum of 48 hours will be provided to the consultant prior to the commencement of any initial ground- disturbing activities, such as vegetation grubbing or clearing, grading, trenching, or mass excavation.

As detailed in the schedule provided, a paleontological monitor shall be present on-site at the commencement of ground-disturbing activities related to the Proposed Project. The monitor, in consultation with the Qualified Paleontologist, shall observe initial ground-disturbing activities and, as they proceed, make adjustments to the number of monitors as needed to provide adequate observation and oversight. All monitors will have stop-work authority to allow for recordation and evaluation of finds during construction. The monitor will maintain a daily record of observations as an ongoing reference resource and to provide a resource for final reporting upon completion of the Proposed Project.

The Qualified Paleontologist, paleontological monitor, and the Applicant, or their designated Contractor, and subcontractors shall maintain a line of communication regarding schedule and activity such that the monitor is aware of all ground-disturbing activities in advance to provide appropriate oversight.

MM-PR-4: If paleontological resources are discovered, construction shall be halted within 50 feet of any paleontological finds and shall not resume until the Qualified Paleontologist can determine the significance of the find and/or the find has been fully investigated, documented, and cleared.

MM-PR-5: At the completion of all ground-disturbing activities, the Qualified Paleontologist shall prepare a Paleontological Resources Monitoring Report summarizing all monitoring efforts and observations, as performed, and any and all paleontological finds, as well as providing follow-up reports of any finds to the preferred paleontological repository, as required.

VIII. *GREENHOUSE GAS EMISSION*

Introduction

This section describes the regulatory setting and potential global climate change effects from implementation of the Proposed Project.

Regulatory Setting

Significant legislative and regulatory activities directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing greenhouse gas emissions in California, and AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. In addition to AB 32, Executive Order B-30-15 was issued on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. In September 2016, AB 197 and SB 32 codified into statute the GHG emission reduction targets provided in Executive Order B-20-15. CARB is the state agency charged with monitoring and regulating sources of emissions of GHGs in California that contribute to global warming in order to reduce emissions of GHGs. The CARB Governing Board approved the 1990 GHG emissions level of 427 million tons of CO2 equivalent (MtCO2e) on December 6, 2007. Therefore, in 2020, annual emissions in California are required to be at or below 427 MtCO2e. The CARB Board approved the Climate Change Scoping Plan (Scoping Plan) in December 2008, the First Update to the Scoping Plan in May 2014, and California's 2017 Climate Change Scoping Plan in November 2017. The Scoping Plans define a range of programs and activities that will be implemented primarily by state agencies but also include actions by local government agencies. Primary strategies addressed in the Scoping Plans include new industrial and emission control technologies; alternative energy generation

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technologies; advanced energy conservation in lighting, heating, cooling, and ventilation; reduced-carbon fuels; hybrid and electric vehicles; and other methods of improving vehicle mileage. Local government will have a part in implementing some of these strategies. The Scoping Plans also call for reductions in vehicle-associated GHG emissions through smart growth that will result in reductions in vehicle miles traveled (CARB 2008, 2014, 2017).

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ☐ ☐ ☒ ☐

Neither the County of Imperial nor the ICAPCD has established significance thresholds for GHG emissions. In order to establish context in which to consider the GHG emissions created from the Proposed Project, this analysis reviewed guidelines used by other public agencies in California and found the most conservative GHG emissions threshold is detailed in *CEQA & Climate Change, p*repared by California Air Pollution Control Officers Association (CAPCOA, 2008), which recommends a threshold of 900 metric tons of CO2e (MTCO2e) per year from any project. It should also be noted that a direct comparison of construction GHG emissions with long-term thresholds would not be appropriate, since construction emissions are short-term in nature and would cease upon completion of construction. Other Air Districts, including the SCAQMD, recommend that GHG emissions from construction activities be amortized over 30 years, when construction emissions are compared to operational-related GHG emissions thresholds.

The Proposed Project includes installation of an irrigation well approximately 600-750 feet in depth, and conversion of approximately 250 acres of undeveloped land. The Proposed Project would require approximately 27 years to convert land for farming use at a rate of 9 acres per year. Analysis for the construction of nearby wells of similar characteristics indicate construction and operation of a similar facilities would result in approximately 34.81 metric tons/year of total GHG, which would not exceed the established annual GHG emissions threshold of 900 metric ton/year.[17] As such, it could be concluded that the Proposed Project's construction-related GHG contribution is not "cumulatively considerable" and is therefore less than significant under CEQA.

b) Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☐ ☐ ☒ ☐

The California State Legislature adopted AB 32 in 2006, that requires the State's GHG emissions by 2020 to meet the GHG emissions level created in 1990 and adopted AB 197 and SB 32 in 2016, that requires the State's GHG emissions to be 40 percent below 1990 levels by 2030.

Neither the County of Imperial nor the ICAPCD has adopted a climate action plan to reduce GHG emissions in the Proposed Project area. As shown above in impact (a), based on construction of similar nearby wells, the Proposed Project would be expected generate approximately 35 MTCO2e per year, below the established GHG emission threshold of 900 MTCO2e per year. Therefore, the Proposed Project would not conflict with any applicable plan, policy, or regulation adopted for reducing the emissions of GHGs. A less than significant

[17] (Chambers Group, Inc)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

impact would occur.

IX. *HAZARDS AND HAZARDOUS MATERIALS*

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ☐ ☐ ☒ ☐

Vehicles and equipment used for irrigation well construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid. Hazardous substances would be stored in transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills. No other hazardous or potentially hazardous materials will be brought to the well site. Further, the Proposed Project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the transport, use, or disposal of hazardous materials. This impact is less than significant.

b) Create a significant hazard to the public or the environment through reasonable, foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ☐ ☐ ☒ ☐

As noted above, the Proposed Project would require the storage of hazardous materials; however, hazardous substances would be stored in transportable containment trailers at locations within the construction staging area to minimize potential for accidental releases and/or spills. No other hazardous or potentially hazardous materials will be brought to the well site. Further, the Proposed Project would be required to comply with all applicable rules and regulations involving hazardous materials, including the State of California CCR Title 23 Health and Safety Regulations, the California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention (CalARP) Program, and the California Health and Safety Code. Compliance with these measures would reduce any potential risk or impact associated with the release of hazardous materials into the environment. This impact is less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ☐ ☐ ☐ ☒

The Proposed Project is not located within one-quarter mile of schools; nor are any schools proposed within a one-quarter mile radius of the project site. The nearest school to the Proposed Project is West Shores High School approximately 4 miles northeast. The Proposed Project would not result in a release of hazardous

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

emissions, hazardous or acutely hazardous materials, or substances within 0.25 miles of an existing or proposed school. No impact would occur.

d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ☐ ☐ ☐ ☒

A review of federal and state standard and supplemental databases indicates the Proposed Project is not located within any identified hazardous material site pursuant to Government Code Section 65962.5. No hazardous materials sites are located within 0.25 mile of the Proposed Project area.[18] The Proposed Project would not create a significant hazard to the public or environment. No impacts would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ☐ ☐ ☐ ☒

The Proposed Project is within 2 miles of the Salton City Airport; however, implementation of the Proposed Project would not result in people permanently residing in the area. Following construction, no permanent workers would be located on site and work in the area would be consist of farming activities; the Proposed Project does not involve housing. As such, the project will not result in exposure to a safety hazard or excessive noise from proximity to the Salton City Airport. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☐ ☒

The construction of the Proposed Project would not involve blocking or restricting any access routes. The Proposed Project would not interfere with emergency response plans or operations near the irrigation well. No impacts are expected.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ☐ ☐ ☐ ☒

The potential for a wildfire in the unincorporated areas of the County is generally low[19] and the irrigation well

[18] (Department of Toxic Substance Control)

[19] (County of Imperial)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

are not located within a fire hazard severity zone.[20] The Proposed Project would not introduce features that directly or indirectly increase the risk of wildfire throughout the Proposed Project area. No impact would occur.

X. *HYDROLOGY AND WATER QUALITY*

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? ☐ ☐ ☒ ☐

No known or reasonably expected surface water quality issues are anticipated to result from implementation of the Proposed Project; however, because ground-disturbing activities will occur in an area greater than one acre, a SWPPP will be developed that implements BMPs (as previously discussed) that sufficiently control degradation of water quality on site and adjacent to a drill pad or access road. In addition, the SWPPP will be implemented such that stormwater discharges would not adversely impact human health or the environment, nor contribute to any exceedances of any applicable water quality standard contained in the Basin Plan (Colorado River Basin Regional Water Quality Control Board).[21] This impact is less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ☐ ☐ ☒ ☐

Construction of the well associated with the Proposed Project would require approximately 50,000 gallons of water per day; however, the use of water would be temporary in nature (30 days per proposed well site), and water necessary for these activities would be purchased from the Coachella Valley Water District via a fire hydrant. The proposed well would not result in a decrease in groundwater supplies and would not interfere with groundwater recharge; therefore, the Proposed Project would result in less than significant impacts associated with groundwater depletion.

The Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin.

Based upon an approximate flow of 125 gpm per well, additional drawdown on neighboring wells would be less than 2 ft outside of a 10,000-ft radius of a proposed airport supply well. The nearest neighboring water well identified is about 4,800 ft away and inactive. The next closest neighboring wells identified (to the north) are more than 10,000 ft away. Most of the neighboring wells are also likely inactive, as a field reconnaissance in December of 2015 found only old Salton City wells northwest of the landfill. Currently the area is part of the Coachella Valley Water District and all water is piped south to Salton City from the Coachella Valley in Riverside County.[22]

[20] (CalFire)

[21] (Colorado River Basin Regional Water Quality Control Board)

[22] *Ibid*

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

Given the depth of the West Salton Sea Basin, it is likely that a well drilled sufficiently deep at the proposed location west of the hangar at the airport should intersect multiple higher-permeability units and apparent transmissivity could increase with well depth. According to literature review, two existing wells in the immediate area show yielding more than double the required amount. Further, extrapolation of existing data for the Burrtec Landfill Well 1 suggest the required rate of 125 gpm could be achieved with about 875 ft of drawdown in a similarly completed well. A well depth of about 1,200 ft bgl, with an adequate length of screen, is recommended to accommodate such a large amount of drawdown.[23]

If more than one well is completed, the wells would need to be over 3,000 ft apart to keep interference effect below 10 ft of drawdown. Any additional well installations would need to be spaced as far apart as possible on the approximately 320-acre airport property.

Maximum projected drawdown (decline) is project at less than 2 ft at a distance of 10,000 ft from the airport after 20 years of pumping for a range of transmissivities, including the 25 ft2/day for the Burrtec Landfill Well 1 documented at the landfill.[24]

Based on the above findings, the Proposed Project would result in a less than significant impact to and groundwater supply and recharge rate, nor would the Proposed Project impede sustainable management of the West Salton Sea Basin.

c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
	(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐

The Proposed Project would not result in substantial erosion, or siltation, on- or off-site. The Proposed Project would void existing drainages and ephemeral. No areas of landslide or increased erosion occur on site. The Proposed Project would be developed consistent with existing terrain, and areas used for farming would be maintained at a relatively flat grade. Therefore, the Proposed Project would not result in substantial on- or off-site erosion. Impacts would be less than significant.

	(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐

The Proposed Project would not convert pervious soil into impervious surface. The Proposed Project involves conversion of the existing undeveloped land into farm use. The Proposed Project would avoid impacts to existing drainages and ephemeral washes. Topography would be maintained at a relatively flat grade, consistent with present conditions, and would not contribute to surface runoff in a manner which results in on-

[23] *Ibid*

[24] *Ibid*

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

or off-site flooding. Impacts would remain less than significant.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or;	☐	☐	☒	☐

The Proposed Project would not convert pervious soil into impervious surface. The Proposed Project involves conversion of the existing undeveloped land into farm use. The Proposed Project would avoid impacts to existing drainages and ephemeral washes. Topography would be maintained at a relatively flat grade, consistent with present conditions. Irrigation will be contained on site. Site runoff will not occur. Therefore, the Proposed Project would not contribute to runoff water or exceed the capacity of existing or planned stormwater drainage systems. The Proposed Project would not involve sources of runoff. Impacts would remain less than significant.

(iv) impede or redirect flood flows?	☐	☐	☐	☒

The Proposed Project would not impact flood flows. No work would occur within regulatory floodways or ephemeral washes or watercourses. The Federal Emergency Management Administration identifies two regulatory floodways on the project site.[25] The regulatory floodway feature a low (1% risk) of flooding, and further, the Proposed Project would avoid impacts to these features. The Proposed Project would not impede or redirect flood flows; no impacts would occur.

d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

The Proposed Project is not located in an area at risk of tsunami or seiche.[26] No impact would occur.

e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

The Proposed Project and associated well would be compliant with all city, state, and federal regulations, including compliance with the NPDES permits with the implementation of BMPs; compliance with the referenced regulations would reduce any potential impact associated with a water quality control plan to a less than significant. Additionally, as discussed above, implementation of the Proposed Project would not require water supplies beyond the supplies purchased from Coachella Valley Water District.

Further, the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The proposed commercial irrigation well would be constructed consistent with applicable guidelines and regulations. Therefore, the Proposed Project would remain

[25] (Federal Emergency Management Administration)
[26] (County of Imperial)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

consistent with the Imperial Integrated Regional Water Management Plan.[27] No impact would occur.

XI. *LAND USE AND PLANNING*

Would the project:

a)	Physically divide an established community?	☐	☐	☐	☒

The Proposed Project includes the construction of a commercial irrigation well and conversion of approximately 250-acres of undeveloped desert land to commercial farm use. The Proposed Project would not physically divide an established community, as no facilities are proposed that would prohibit travel throughout the Proposed Project area. The Proposed Project would not physically divide or block residents from accessing public areas or facilities. Land use designations would remain the same. No impact would occur.

b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

No Plans exist have been adopted for the Salton Sea Airport.[28] The Proposed Project is not in conflict with the County adopted land use plans or policies. It is consistent with the County's General Plan, the Renewable Energy and Transmission Element Update, and the applicable sections of the Imperial County Land Use Ordinance (Title 9); therefore, no impact would occur.

XII. *MINERAL RESOURCES*

Would the project:

a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

A number of mineral resources in Imperial County are currently being extracted, including gold, gypsum, sand, gravel, lime, clay, stone, kyanite, limestone, sericite, mica, tuff, salt, potash, and manganese. Several issues influence the extraction of mineral deposits in Imperial County, including the location of geologic deposition, the potential for impacts to the environment, and land use conflicts. As a result, the extraction of mineral resources is limited to a relatively small number of sites throughout the County.

The Proposed Project would not result in any impacts to known mineral resources or mineral resource recovery sites. Additionally, the Proposed Project would not preclude future mineral resource exploration throughout the Proposed Project area. No impacts would occur.

[27] (Imperial Irrigation District)

[28] (Imperial County)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

The Proposed Project would not result in any impacts to known mineral resources or mineral resource recovery sites. Additionally, the Proposed Project would not preclude future mineral resource exploration throughout the Proposed Project area. No impacts would occur.

XIII. *NOISE*

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Environmental Setting

The Proposed Project is located on the southwest side of Salton City, which is an unincorporated area located in the western portion of Imperial County. The primary sources of noise within the study area consists of vehicle noise on State Route 86 and the local roads, aircraft noise from Salton Sea Airport (Airport), and from off-road equipment operating at the Salton City Landfill. It should be noted that due to the distances these sources are located from the Proposed Project, these noise sources only provide nominal increases to the very low ambient noise levels at the proposed irrigation well site.

The nearest sensitive noise receptor consists of single-family residence, approximately 1,300 feet northeast at Air Park Drive.

County of Imperial Noise Standards

The General Plan Noise Element provides the applicable noise standards for the Proposed project.[29] The Noise Element limits the noise level from any noise generating property to 50 dBA between 7 a.m. and 10 p.m. and to 45 dBA between 10 p.m. and 7 a.m. at the property line of the nearest home. The Noise Element exempts construction noise from these standards, provided construction activities.

Noise at the Site may temporarily increase as a result of project construction. Working hours are anticipated to be 8 to 12 hours per day beginning in the morning hours and per the contractor's direction. In accordance with the General Plan, construction equipment operation will be limited to the hours of 7 am to 7pm Monday through Friday and 9 am to 5pm on Saturday, in compliance with the County General Plan noise ordinance. Temporary increases may result from traffic to the site and operation of construction equipment. Equipment

[29] (County of Imperial)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

used for construction will include but are not limited to the following: motor graders, soil compactors, front-end loaders, bulldozers, and skid steers.

Noise levels will be maintained as outlined in the Imperial County General Plan Noise Element.[30] The General Plan Noise Element exempts construction activities from the applicable noise standards, provided that construction activities are limited to between 7 a.m. and 7 p.m. Monday thru Friday and between 9 a.m. and 5 p.m. on Saturday and do not exceed 75 dBA Leq at the nearby residences. Construction of the irrigation well and farm, and farming operations would adhere to the allowable times for construction activities as detailed in the General Plan.

The County of Imperial permits operation of properly conducted agricultural operations within the County. In addition, the Proposed Project would comply with County Ordinance (1031), which serves as recognition to agricultural practices to new development. Agricultural/Industrial operations shall comply with the noise levels prescribed under the General Industrial Zones. Noise levels will be maintained as outlined in the Imperial County General Plan Noise Element. Impacts would be less than significant.

b) Generation of excessive ground borne vibration or ground borne noise levels? ☐ ☐ ☒ ☐

The County of Imperial permits operation of properly conducted agricultural operations within the County. In addition, the Proposed Project would comply with Imperial County Right to Farm Ordinance (1031). Agricultural/Industrial operations shall comply with the noise levels prescribed under the General Industrial Zones. Noise levels will be maintained as outlined in the Imperial County General Plan Noise Element. In addition, no sensitive noise receptors are located near the site. Impacts would be less than significant. The Proposed Project would not involve excessive ground borne vibration or ground borne noise levels. Impacts would remain less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? ☐ ☐ ☒ ☐

The Proposed Project site surrounds the Salton Sea Airport, located as near as 400 feet from the runway for Salton Sea Airport. The Noise Element of the General Plan (Imperial County, 2015) states that current airport activity at Salton Sea Airport is negligible and due to the low levels of activity. Therefore, the County did not prepare noise contours for Salton Sea Airport. Therefore, it is likely that Salton Sea Airport does not have activity to create 65-dBA CNEL noise contours. The Proposed Project would consist of a very limited increase in people working in the project area and the only source of airport noise is Salton Sea Airport that produces noise levels below County noise standards. As such, airport and airstrip noise impacts would be less than significant.

[30] (County of Imperial)

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

XIV. ***POPULATION AND HOUSING***

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☐ ☒

The Proposed Project would not induce unplanned population growth or displace existing people or housing. The Proposed Project consists of the installation of a commercial irrigation well and conversion of 250-acres into agricultural use within a predominantly undeveloped, vacant area of Imperial County. No residential units would require relocation, and access roads associated with the Proposed Project would be used only for accessing the Proposed Project. No development of new roads or infrastructure is proposed that would introduce new populations to the Proposed Project area. No impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ☐ ☐ ☐ ☒

The project site is currently vacant. The Proposed Project does not involve the displacement of homes, businesses, or residents. No impact would occur.

XV. ***PUBLIC SERVICES***

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: ☐ ☐ ☐ ☐

1) Fire Protection? ☐ ☐ ☐ ☒

The Proposed Project would not result in substantial adverse physical impacts to fire protection. The Proposed Project would not involve the modification of any fire protection services or their facilities. The survey also would not invite new populations to the area that would result in the permanent, and increased need of fire protection services. No impact would occur.

2) Police Protection? ☐ ☐ ☐ ☒

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

The Proposed Project would not result in substantial adverse physical impacts to fire protection. The Proposed Project would not involve the modification of any police protection services or their facilities. The survey also would not invite new populations to the area that would result in the permanent, and increased need of fire protection services. No impact would occur.

3) Schools? ☐ ☐ ☐ ☒

The Proposed Project would not directly increase demand for public schools In the County. As a commercial water well and farming project, the Proposed Project would not generate employment that results in a substantial demand on school services. Indeed, the Proposed Project is only anticipated to have four employees when it is operational. The Proposed Project would not directly or indirectly induce any population growth in the Proposed Project area. Therefore, the Proposed Project would not Increase demand on schools, nor degrade the quality of existing schools. No impacts would occur.

4) Parks? ☐ ☐ ☐ ☒

The Proposed Project would not result in substantial adverse physical impacts to parks. The Proposed Project would not involve the modification of any parks or their facilities. Moreover, the Proposed Project would not invite new populations to the survey area that would result in the permanent and increased need for parks. No impact would occur.

5) Other Public Facilities? ☐ ☐ ☐ ☒

The Proposed Project would not result in substantial adverse physical impacts to public facilities. The Proposed Project would not involve the modification of any public facilities. Moreover, the Proposed Project would not invite new populations to the survey area that would result in the permanent and increased need for parks. No impact would occur

XVI. ***RECREATION***

a) Would the project increase the use of the existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☐ ☒

Construction of the Proposed Project would not increase the use or demand for neighborhood parks, campgrounds, trails, or other recreational facilities and would not include the construction or expansion of new recreational facilities. The Proposed Project would not induce new populations that would result in the substantial physical deterioration of recreational facilities or require new facilities. No impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse ☐ ☐ ☐ ☒

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

effect on the environment?

The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities. The Proposed Project would not induce new populations that would result in the substantial physical deterioration of recreational facilities or require new facilities. No impact would occur.

XVII. *TRANSPORTATION*

Would the project:

a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

Primary highway access to the Project vicinity is provided by State Highway 86, a four-lane highway running north-south through Imperial County on the west side of the Salton Sea. Immediate access to the site is from an approximate 2-mile private access road between the Salton City Refuse Disposal State Highway 86. All existing nearby designated roads and trails would remain available for use. The Proposed Project would not affect transportation or pedestrian facilities. The Proposed Project would not cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system is negligible. Impacts would be less than significant.

b)	Would the project conflict or be inconsistent with the CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒

Any increase in traffic would be short-term and temporary. Traffic volumes generated by construction and well drilling would be so minor, the potential for the Proposed Project to cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system is negligible. Approximately 4 workers would be present during construction of the proposed well. Additionally, Proposed Project operations would not appreciably increase vehicle miles travelled (VMT); traffic would only consist of routine transport of materials, and workers commuting to and from the site. Impacts would be less than significant.

c)	Substantially increases hazard s due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

The Proposed Project does not include any alteration to the existing public road network or involve incompatible use. This impact is less than significant.

d)	Result in inadequate emergency access?	☐	☐	☐	☒

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

The Proposed Project would not involve blocking or restricting any access routes. The Proposed Project would not interfere with emergency response plans or operations near the Proposed Project area. No impacts would occur.

XVIII. *TRIBAL CULTURAL RESOURCES*

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:	☐	☒	☒	☐
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or	☐	☐	☐	☐

The Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource. Chambers Group submitted a request for a search of the Sacred Lands Files (SLF) housed at the California Native American Heritage Commission (NAHC) on January 5, 2023. The results of the search were returned on February 8, 2023, and were negative, stating that the absence of specific site information in the SLF does not indicate the absence of cultural resources in the project site that still may be impacted by Project development. In accordance with California Assembly Bill (AB) 52, Native American tribes with potential resources in the area were notified of the Project on January 18, 2023 and offered the opportunity for consultation. As of April 25, 2023, the Quechan Tribe has requested consultation. Consultation is ongoing and section will be updated pending results of consultation.

(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth is subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

No significant impacts to cultural or paleontological resources are anticipated as a result of the current

undertaking if recommended eligible resources are avoided and the identified mitigation measures (MM-CR-1 through MM-CR-6) are implemented.

Consultation is ongoing and section will be updated pending completion of consultation.

XIX. *UTILITIES AND SERVICE SYSTEMS*

Would the project:

a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐

The Proposed Project would not require the construction of any water, wastewater, stormwater, or energy facilities to accommodate the demands of the Proposed Project. No infrastructure would be required to provide water to the Proposed Project; water for dust control and drilling would be purchased from the Coachella Valley Water District. The Proposed Project would not generate wastewater that would need to be treated by a wastewater treatment facility. Storm water control would be implemented for each well pad and access road. The Proposed Project will be constructed so that no off-site discharge of water will be allowed, and all of the runoff or discharge will be managed on-site. The Proposed Project would not require additional water, electric, wastewater, natural gas, telecommunications facilities. Due to the lack of public utilities and services available within the Proposed Project area, and the lack of need to provide expanded services to accommodate the Proposed Project, these impacts are less than significant.

b)	Have sufficient water supplies available to serve the project from existing and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Construction of the proposed irrigation well associated with the Proposed Project would not require a significant amount of water. Water use associated with the well would be limited to drilling and dust control measures. Water for dust control and drilling would be purchased from the Coachella Valley Water District via a nearby fire hydrant. Operation of the irrigation well would not require significant amount of water and would be limited to general maintenance activities.

While preparing the soil for crop production, water would be applied with a water truck that would be filled directly from the proposed well. The water well would be approximately 600-750 feet deep and would produce up to approximately 200 acre-feet per year (AFY) of water. Once crops are planted, a water delivery system of pipes, agricultural canals, and/or automated spray system fed by electric pumps would be utilized depending on the final crop selection. Any future crop would solely utilize water from the well and would not require any additional water beyond the 200 AFY.

Potable water for employees would be in the form of water bottles and/or the airport hangar facility which is serviced by Coachella Valley Water District domestic water supply. There are sufficient water supplies

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

available to serve the Proposed Project during normal, dry, and multiple dry years. This impact is less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? ☐ ☐ ☐ ☒

As noted in Impact b), the Proposed Project would not generate wastewater that would need to be treated by a wastewater treatment facility. Onsite wastewater needs will be accommodated by the use of portable toilets. No impact would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ☐ ☐ ☒ ☐

Small amounts of drilling mud and cuttings would be generated from drilling operations associated with the Proposed Project. These wastes would be temporarily stored in the onsite containment basin or tanks. The solid contents remaining in each containment basin, typically consisting of non-hazardous, non-toxic drilling mud and rock cuttings, will be tested as required by the CRWQCB. The solids will be removed and disposed of in a waste disposal facility authorized by the CRWQCB to receive and dispose of these materials. If allowed, they may be used as daily cover at the nearby landfill.

Further, all solid waste or trash created during the construction of the Proposed Project will be transported for disposal at an approved solid waste disposal facility. All survey debris, including flagging, stakes, and pin flags, will be gathered on cleared pathways daily and disposed of at an approved site or landfill. This Impact is therefore less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ☐ ☐ ☒ ☐

Construction and operation of the Proposed Project would comply with all applicable statutes and regulations related to solid waste, as described above. Solid waste generated from the Proposed Project is expected to be minimal. This impact is less than significant.

XX. ***WILDFIRE***

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☐ ☒

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

The Proposed Project is not within a high fire hazard severity zone.[31] Proposed Project construction would not block or restrict emergency access routes. The Proposed Project would not impair an adopted emergency response plan or emergency evacuation plan. No impact is projected.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? ☐ ☐ ☐ ☒

The Proposed Project would not involve development of structures of infrastructure that would introduce new populations to the Proposed Project area that could result in impacts involving wildfires. The survey would comply to the goals and policies identified in the County of Imperial General Plan Seismic and Public Safety Element to provide adequate safety measures to protect residents within the Proposed Project area. No impact would occur.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? ☐ ☐ ☐ ☒

The Proposed Project would not involve development of structures of infrastructure that would introduce new populations to the Proposed Project area that could result in impacts involving wildfires. No impact is projected.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ☐ ☐ ☐ ☒

As noted above, the Proposed Project would not involve development of structures of infrastructure that would introduce new populations to the Proposed Project area that could result in impacts involving wildfires. No impact would occur.

SECTION 3
III. MANDATORY FINDINGS OF SIGNIFICANCE

The following are Mandatory Findings of Significance in accordance with Section 15065 of the CEQA Guidelines.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate ☐ ☒ ☐ ☐

[31] (CalFire)

a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, eliminate tribal cultural resources or eliminate important examples of the major periods of California history or prehistory?

As identified in Section V of this IS, the Proposed Project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, and/or reduce the number or restrict the range of a rare or endangered plant or animal. However, the Proposed Project would implement measures MM-BR-1 through MM-BR-7 to reduce any potentially significant impacts to biological resources. Additionally, the Proposed Project was determined to result in potentially significant impacts associated with California history or prehistory. Implementation of MM-CR-1 through MM-CR-5, and MM-PR-1 through MM-PR-5 would reduce these impacts to less than significant. Therefore, the Proposed Project would result in less than significant impacts with mitigation incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) ☐ ☒ ☐ ☐

Implementation of the Proposed Project would not result in a cumulative impact. All potentially significant impacts can be reduced to less than significant vie the implementation of mitigation measures. The cumulative impacts associated with the Proposed Project are less than significant.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☒ ☐ ☐

As noted above, all environmental impacts associated with implementation of the Proposed Project can be reduce to less than significant via implementation of mitigation measures. The Proposed Project would not result in significant impacts on human beings. This impact is less than significant.

IV. PERSONS AND ORGANIZATIONS CONSULTED

This section identifies those persons who prepared or contributed to preparation of this document. This section is prepared in accordance with Section 15129 of the CEQA Guidelines.

A. COUNTY OF IMPERIAL

- Jim Minnick, Director of Planning & Development Services
- Michael Abraham, AICP, Assistant Director of Planning & Development Services
- David Black, Project Planner
- Imperial County Air Pollution Control District
- Department of Public Works

- Fire Department
- Ag Commissioner
- Environmental Health Services
- Sheriff's Office

B. OTHER AGENCIES/ORGANIZATIONS

- _____
- _____

(Written or oral comments received on the checklist prior to circulation)

V. APPENDICES

Appendix A – Biological Resources Report and Jurisdictional Delineation
Appendix B – Archaeological Survey Report
Appendix C – Hydrogeological Report

VI. REFERENCES

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VII. FINDINGS

This is to advise that the County of Imperial, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environment and is proposing this Negative Declaration based upon the following findings:

☐ The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☐ The Initial Study identifies potentially significant effects but:

(1) Proposals made or agreed to by the applicant before this proposed Mitigated Negative Declaration was released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

(2) There is no substantial evidence before the agency that the project may have a significant effect on the environment.

(3) Mitigation measures are required to ensure all potentially significant impacts are reduced to levels of insignificance.

A MITIGATED NEGATIVE DECLARATION will be prepared.

If adopted, the Negative Declaration means that an Environmental Impact Report will not be required. Reasons to support this finding are included in the attached Initial Study. The project file and all related documents are available for review at the County of Imperial, Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 (442) 265-1736.

NOTICE

The public is invited to comment on the proposed Negative Declaration during the review period.

Date of Determination Jim Minnick, Director of Planning & Development Services

The Applicant hereby acknowledges and accepts the results of the Environmental Evaluation Committee (EEC) and hereby agrees to implement all Mitigation Measures, if applicable, as outlined in the MMRP.

Applicant Signature Date

DRAFT

BIOLOGICAL RESOURCES REPORT FOR THE BURRTEC COMMERCIAL WATER WELL AND FARMING PROJECT IMPERIAL COUNTY, CALIFORNIA

Prepared for:

COUNTY OF IMPERIAL
Planning & Development Services Department
801 Main Street
El Centro, CA 92243

Prepared by:

CHAMBERS GROUP, INC.
5 Hutton Centre Drive, Suite 750
Santa Ana, CA 92707

March 2023

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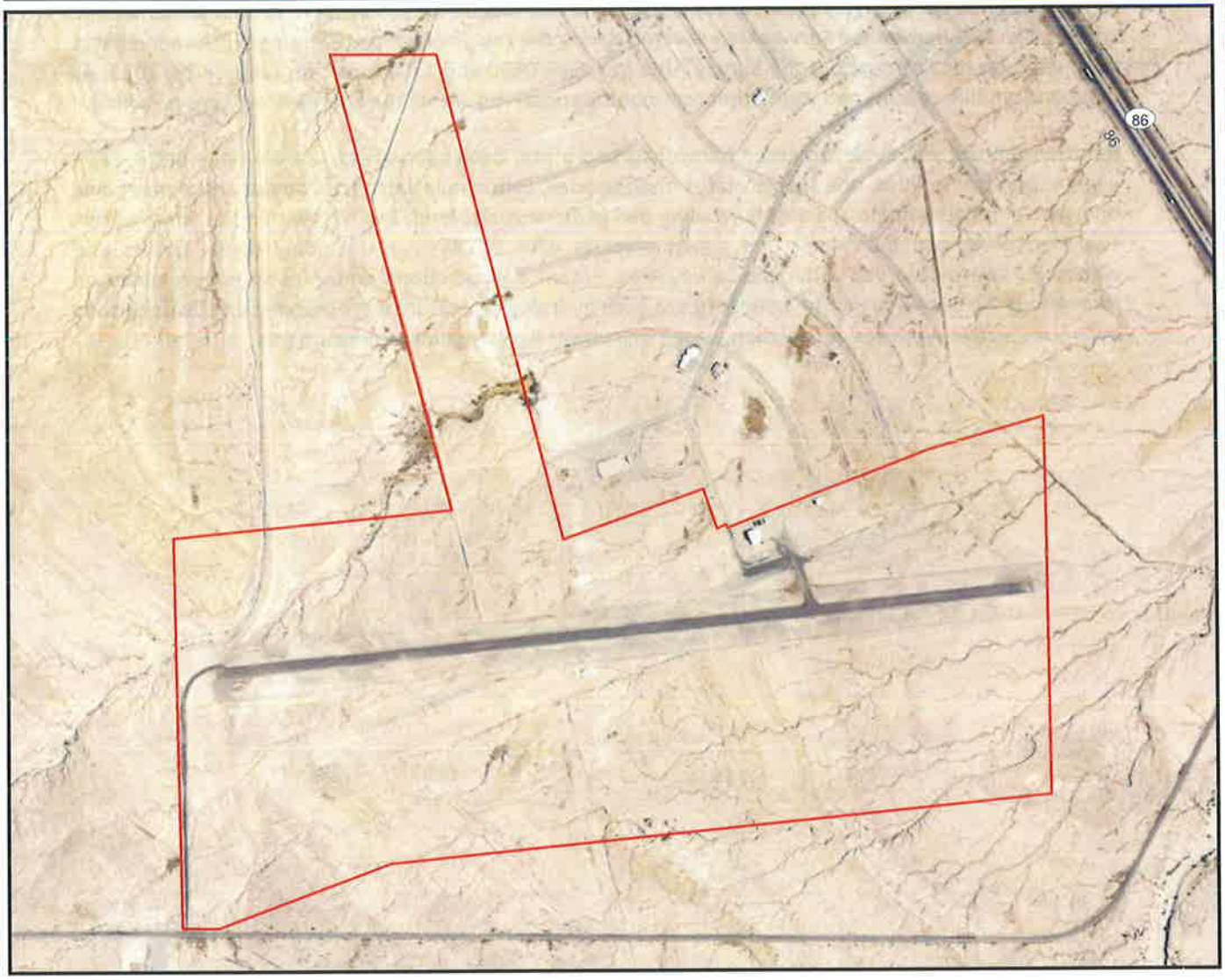
SECTION 1.0 – SUMMARY

This Biological Resources Report has been completed by Chambers Group, Inc. (Chambers Group) to determine the potential for impacts to biological resources associated with construction of the proposed Burrtec Commercial Water Well and Farming Project (Project or proposed Project). The proposed Project consists of an approximately 600 to 750-foot-deep water well and associated crop farming and is located on approximately 250 acres in Imperial County surrounding the Salton Sea Airport (Figure 1). The Project location as depicted in Figure 1 is referred to throughout this report as the Survey Area. The Survey Area for the reconnaissance-level survey, vegetation mapping, and preliminary jurisdictional delineation includes all areas within the proposed Project boundaries.

Chambers Group biologists Heather Franklin, Austin Burke, and Alisa Muniz conducted a reconnaissance-level survey and jurisdictional delineation within the Survey Area to identify the potential for occurrence of special status species, vegetation communities, and habitats that could support special status wildlife species. Figure 1 depicts the Survey Area covered during the reconnaissance-level survey. The survey was conducted on foot throughout the Survey Area between 0830 and 1700 hours on January 13, 2023. All plant and wildlife species and vegetation communities observed within the Survey Area were recorded.

Results from the survey documented bare/disturbed areas, developed areas, a man-made berm, eight vegetation communities, one special status plant species, Salton milk vetch (*Astragalus crotolariae*), and one special status wildlife species, burrowing owl (*Athene cunicularia*; BUOW), within the Survey Area. Two burrowing owl individuals and active burrows with BUOW sign, including cough pellets and whitewash, were observed within the Survey Area. Potential jurisdictional water features were observed throughout the Survey Area. The boundaries of each hydrological feature were mapped and distinguished by the respective Agencies' jurisdiction, based on current Agency guidance documents.



Project Location

N

0 400 800 1,600

Feet

Figure 1
Burrtec Commercial Water Well and Farming Project
Project Location and Vicinity

Name: 21397 BIO Fig 1 Project Location and Vicinity.Mxd
Print Date: 2/8/2023 12:50:13 PM Author: pcarlos

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SECTION 2.0 – INTRODUCTION, PROJECT DESCRIPTION, LOCATION, SETTING

2.1 INTRODUCTION

Chambers Group was retained by the County to conduct a literature review, reconnaissance-level biological resources survey, and jurisdictional waters delineation for the proposed Project. The proposed Project is composed of a 600 to 750-foot deep water well and crop farming operation located on approximately 250 acres in Imperial County surrounding the Salton Sea Airport. This report presents the results and professional recommendations regarding the treatment of special status biological resources in the Survey Area. Information contained in this document has been prepared in accordance with accepted scientific and technical standards that are consistent with the requirements of USFWS and CDFW.

2.2 PROJECT DESCRIPTION

Burrtec Waste Industries, Inc. in coordination with the County proposes the construction of a water well and associated crop farming. The heavy clay ground surrounding the Salton Sea Airport will require the addition of organics and amendments to support crop production. The proposed Project would receive organics materials from regional diversion facilities and programs which will include composted green material, composted green/wood and food wastes, manures, dried Class A and Class A (Exceptional Quality (EQ))1 biosolids (collectively referred to as compost). These materials are occasionally supplemented with gypsum and other common agronomic additives at the Salton City Composting/Biosolids Drying Operation, which would help to improve soil drainage and crop production and reduce water needs. The purpose of the proposed Project is to support diversion of organics mandated by the State within Senate Bill (SB) 1383, resulting from regional recycling efforts. The proposed Project intends to use the water from the well to support the farming efforts. The water well would produce up to approximately 200 acre-feet per year (AFY) of water. While no specific crop has been chosen at this time, some sort of feed crop would be grown that would change depending on the agricultural market.

2.3 PROJECT LOCATION AND SETTING

The Project site is located at 1590 Air Crest Drive, which is found just west of Highway 86 on land owned by Burrtec Waste Industries, Inc. Regional access is provided by Highway 86, and Project site access occurs off of Highway 86, along Air Park Drive (Figure 1). The elevation at the Project site ranges from approximately -75 to 124 feet below mean sea level (bmsl). The Project site encompasses approximately 250 acres within Imperial County. The Project site is currently an active airport with one runway and an associated parking lot. The site is composed primarily of open space, with the Burrtec landfill to the west.

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[1] Class A biosolids are essentially free of pathogens prior to land application. The metal contents requirements under the Part 503 Rule are the same for Class A and Class B biosolids. Class A biosolids products include lime pasteurized biosolids and fertilizer pellets. EQ biosolids have lower metals concentration requirements than either Class A or Class B biosolids and have the same pathogen levels as Class A biosolids. (Cal Recycle 2022)

SECTION 3.0 – JURISDICTIONAL WATERS REGULATORY OVERVIEW

The limits of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) were delineated for the proposed Project site. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake which supports fish or wildlife.

3.1 FEDERAL JURISDICTIONS

3.1.1 United States Army Corps of Engineers

On September 12, 2019, the Environmental Protection Agency (EPA) and Department of the Army signed a final rule to repeal the 2015 Clean Water Rule (2015 Rule) and re-codify the regulatory text defining "waters of the United States" that existed prior to the 2015 Rule. The new regulations went into effect on December 23, 2019. One of the proposed changes includes ephemeral features that contain water only during or in response to rainfall would no longer be considered "waters of the United States" under the jurisdiction of the USACE. On August 28, 2019, the Office of Administrative Law approved the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to "waters of the State". The procedures went into effect on May 28, 2020. Under these new regulations, the State Water Resources Control Board and its nine RWQCBs will assert jurisdiction over all existing "waters of the United States", and all waters that would have been considered "waters of the United States" under the 2015 Rule. Thus, the "waters of the United States" that would no longer be under USACE jurisdiction would be under RWQCB jurisdiction.

The EPA and USACE are in receipt of the U.S. District Court for the District of Arizona's August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. On October 22, 2019, the EPA and USACE published a final rule to repeal the 2015 Clean Water Rule: Definition of "Waters of the United States" ("2015 Rule"), which amended portions of the Code of Federal Regulations (CFR), and to restore the regulatory text that existed prior to the 2015 Rule. Therefore, this Preliminary Jurisdictional Determination (PJD) is consistent with the pre-2015 regulatory rules and includes measurement of the Ordinary High Water Mark (OHWM).

3.2 STATE JURISDICTION

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050(e)). Waters of the State broadly includes all waters within the State's boundaries (public or private), including waters in both natural and artificial channels.

3.2.1 Regional Water Quality Control Board

Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and RWQCB regulate the discharge of waste into waters of the State. Discharges of waste include "fill, any material resulting from human activity, or any other 'discharge' that may directly or indirectly impact 'waters of the state.'" Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

3.2.2 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

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 surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural

waterways, the limit of CDFW jurisdiction of artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS-accepted definition of a wetland:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In *A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition* (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

SECTION 4.0 – BIOLOGICAL RESOURCES EVALUATION

4.1 METHODS

Chambers Group conducted a literature review, reconnaissance-level survey, and preliminary jurisdictional waters delineation for the proposed Project. The methods used by Chambers Group are outlined below. The following geographies were evaluated in determining the potential for special status species to occur:

- Literature search for special status species occurrences: USGS quadrangles containing and surrounding the Survey Area and occurrences within a 5-mile buffer around the Survey Area as shown on Figure 2
- Reconnaissance-level survey: Project location (Survey Area) as shown on Figure 1
- Jurisdictional delineation: Described in Section 5.3
- Vegetation mapping: Described in Section 5.5

4.1.1 Literature Review

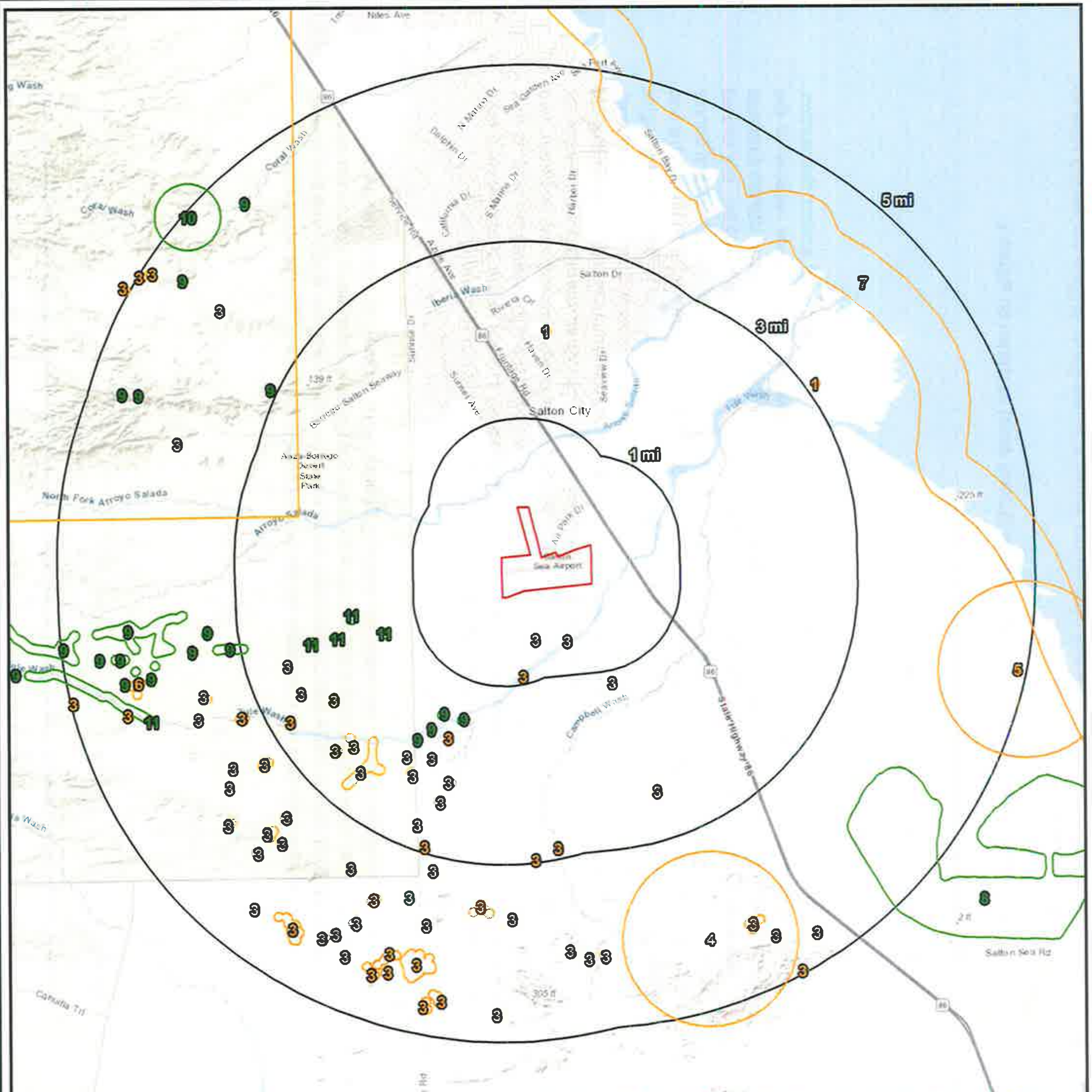
Prior to performing the reconnaissance-level survey and preliminary jurisdictional waters delineation, existing documentation relevant to the Survey Area was reviewed. The most recent records of the California Natural Diversity Database (CNDDB) managed by the CDFW (CDFW 2023), the USFWS database – Carlsbad office (USFWS 2023b), the National Wetlands Inventory (NWI; USFWS 2023a), the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2023), and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023a) were reviewed for the following quadrangles containing and surrounding the Survey Area: *Kane Spring NW, Truckhaven, Seventeen Palms, Shell Reef, Borrego Mountain, Harpers Well, Kane Spring,* and *Kane Spring NE,* California United States Geological Survey (USGS) 7.5-minute quadrangles. These databases contain records of reported occurrences of federally and State listed as endangered or threatened species, proposed endangered or threatened species, California Species of Special Concern (SSC), or otherwise special status species or habitats that have been reported to occur within or in the immediate vicinity (i.e., 5 miles) of the Survey Area. A map of special status species occurrences within 5 miles of the Survey Area is included as Figure 2.

4.1.2 Soils

Before conducting the survey, soil maps for Imperial County were referenced online (USDA 2023) to determine the soil types found within the Survey Area. Soils are typically determined in accordance with categories set forth by the USDA Soil Conservation Service and by referencing the NRCS Web Soil Survey; however, no digital soils data were available for the Survey Area at the time of the literature search.

Figure 2

Burrtec Commercial Water Well and Farming Project
Sensitive Species Occurrences Within 5 Miles



Project Location

CNDDB Occurrences

Animals

Plants

Animals

1. burrowing owl
2. Colorado Desert fringe-toed lizard
3. flat-tailed horned lizard
4. Le Conte's thrasher
5. mountain plover
6. Palm Springs pocket mouse
7. western snowy plover

Plants

8. Active Desert Dunes
9. Orcutt's woody-aster
10. Peirson's pincushion
11. Thurber's pilostyles

No USFWS sensitive species occurrences were recorded within 5 miles of the Survey Area on the figure

N

0 4,600 9,200 18,400

Feet

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4.1.3 Jurisdictional Waters

Chambers Group biologists Heather Franklin and Austin Burke performed an assessment of jurisdictional waters potentially regulated by the USACE, RWQCB, and CDFW within the Survey Area on January 13, 2023.

Climate and flow frequency were considered when observing watermarks and drift lines. For the purpose of determining hydrologic connectivity to a Traditional Navigable Water (TNW), aerial photos, NWI and National Hydrography Dataset (NHD) maps, and USGS quadrangle maps were reviewed; and all features were inspected in the field on- and off-site for true connectivity. Potential USACE / RWQCB / CDFW jurisdictional areas identified during the literature search and aerial image analysis were field checked for the presence of definable channels, soils, wetland vegetation, riparian habitat, and hydrology. The biologists visually inspected all potential waters within the Survey Area for 100 percent coverage. Data was recorded for the presence or absence of fluvial activity, boundaries of geomorphic units, changes in plant species composition between different geomorphic units, soil types and textures, and mapping the watercourse and watercourse boundaries. Each of the hydrological features were examined in the field, and the channel banks were examined for signs of flow, terraces, drift deposits and other indicators that would determine the location of the OHWM. Average channel width and depth, substrate types, and vegetation within and/or along the banks were recorded. Data were collected using a combination of records entered into ESRI ArcGIS Collector© and hand-written field notes. Potential jurisdictional waters and riparian communities were mapped at a minimum scale of 1:6000, often down to 1:2000.

Potential wetland habitats were evaluated using the methodology set forth in the *1987 Corps of Engineers Wetlands Delineation Manual* (1987 Wetland Manual; USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*version 2.0*) (2008 Arid West Supplement; USACE 2008). The methods set forth in the 1987 Wetland Manual and the 2008 Arid West Supplement involve the delineation of wetlands based on the presence of three wetland parameters: a predominance of hydrophytic vegetation, wetland hydrology, and hydric soils. These wetland parameters are discussed in greater detail below.

Hydrophytic Vegetation

Hydrophytic vegetation is defined as "the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content" (USACE 1987). The potential wetland areas within the survey area were surveyed by walking through the Project site and making observations of those areas exhibiting characteristics of jurisdictional wetlands.

Areas supporting plant life potentially indicative of wetlands were evaluated in the field according to current USACE wetland delineation procedures described in the 1987 Wetland Manual (USACE 1987) and the 2008 Arid West Supplement (USACE 2008). The dominant and subdominant plant species present in the sample pits of these potential wetland areas were identified and their wetland indicator status noted based on the current National Wetland Plant List--Arid West Region (Lichvar et al. 2016).

Hydric Soils

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USACE 1987). Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese,

sulfur, or carbon compounds (USACE 2008) due to periods of anaerobic conditions in the soil. The hydric soil criterion is considered satisfied at a location if soils in the area can be inferred to have a high groundwater table, evidence of prolonged soil saturation, or any indicators suggesting a long-term reducing environment in the upper 18 inches of the soil profile are present.

Potential hydric soils were investigated within the survey area. Sample soil pit locations were selected, and a hole was dug to a typical depth of 18 inches (unless prevented by some occluding material) or occasionally deeper to determine soil color, evidence of soil saturation, depth to shallow groundwater, and indicators of a reducing soil environment (e.g., redox concentrations or pore linings, gleyed soils, hydrogen sulfide odor). Soil matrix colors were classified using the Munsell Soil-Color Charts (Munsell Color 2009).

Wetland Hydrology

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

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

4.1.4 Biological Reconnaissance-Level Survey

Chambers Group biologists Heather Franklin, Austin Burke, and Alisa Muniz conducted a reconnaissance-level survey within the Survey Area to identify the potential for occurrence of special status species, vegetation communities, and habitats that could support special status wildlife species. The survey was conducted on foot throughout the Survey Area between 0830 and 1700 hours on January 13, 2023. All plant and wildlife species and vegetation communities observed within the Survey Area were recorded.

Weather conditions during the survey included temperatures ranging from 53 to 70 degrees Fahrenheit, with 30 to 100 percent cloud cover and no precipitation. Wind speeds ranged between 0 and 8 miles per hour (mph). Photographs of the Survey Area were recorded to document existing conditions (Appendix A).

Vegetation Mapping

All plant species and vegetation communities observed within the Survey Area during the reconnaissance-level survey were recorded. Vegetation communities within the Survey Area were identified, qualitatively described, and mapped onto an aerial photograph. The vegetation communities are described following *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012).

Wildlife

All wildlife and wildlife sign observed and/or detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, during both surveys were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (trees were surveyed with binoculars for bird nests or avian activity) or in habitats with the potential to support federally and/or state listed or otherwise special status species. Notes were made on the general habitat types, species observed, and the conditions of the Survey Area.

SECTION 5.0 – RESULTS

5.1 ENVIRONMENTAL CONDITIONS

The Survey Area is set in an arid climate and receives an average of 3 inches of rain per year. The wet season typically spans from late November to the end of March. The Survey Area is currently under severe drought conditions (Riganti 2022). Temperatures typically range from 77 to 106 degrees Fahrenheit (°F) in the summer, and from 43 to 69°F in the winter. The Survey Area typically has a period of high winds from March through July, during which hourly wind speeds average more than 7.8 mph (Cedar Lake Ventures, Inc. 2022).

Several small, developed areas are present throughout the Survey Area that include man-made structures, berms (to direct water flow), barbed fences, and trash piles (Appendix A). Evidence of continual site disturbance, such as off-highway vehicle (OHV) activity is also present throughout the Survey Area, mostly concentrated on the north side of the airport runway. Extensive OHV tracks traversing the Survey Area can be seen on aerial imagery and were observed on the ground during the survey efforts.

5.2 SOILS

After review of the USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2023), it was determined that the Survey Area is located within the Anza-Borrego Area, California (CA804). Based on the results of the database search, no soil data exist for the Survey Area; however, soil data exists 5 miles southeast of the Survey Area that visually appears to be contiguous with the soils found within the Survey Area. Assuming the soils are the same or similar to adjacent soils, the following three soil types may be present within the Survey Area:

- Glenbar complex, 0 to 1 percent slopes is a soil found on basin floors and is alluvium derived. It is composed of 60 percent Glenbar and 40 percent of other minor components. A typical soil profile consists of loam to a depth of 13 inches and clay loam below 13 inches. Glenbar are characterized as well drained and a low water storage profile. Glenbar soils are classified as a statewide importance for farmland.

- Indio-Vint complex, 0 to 2 percent slopes is a soil found on floodplains and is derived from mixed alluvium and eolian deposits. A typical soil profile consists of loam to a depth of 12 inches, loamy fine sand up to 10 inches, loamy sand 10 to 60 inches, followed by stratified loamy very fine sand to silt loam below 12 to 72 inches. This excessively drained soil type is characterized by low runoff and a very low water storage profile. Indio-Vint soils are also used as prime farmland if irrigated.

- Rositas fine sand, 0 to 2 percent slopes comprises somewhat excessively drained soils found on basin floors and is derived from mixed alluvium and eolian deposits. A typical soil profile consists of fine sand to a depth of 9 inches followed by sand to a depth of 60 inches. This soil type is characterized by very low runoff and a low water storage profile. Rositas fine sand are classified as a statewide importance for farmland.

5.3 JURISDICTIONAL WETLANDS AND WATERWAYS

The following sections provide context and background by describing soils, vegetation, and hydrological features within the Survey Area as they pertain to preliminary jurisdictional determination.

The results of the field delineation are presented below. Figure 3 provides potential jurisdictional waters present in the Survey Area as provided by the NWI/NHD datasets. Site photographs are included in Appendix A. OHWM forms are provided in Appendix B.

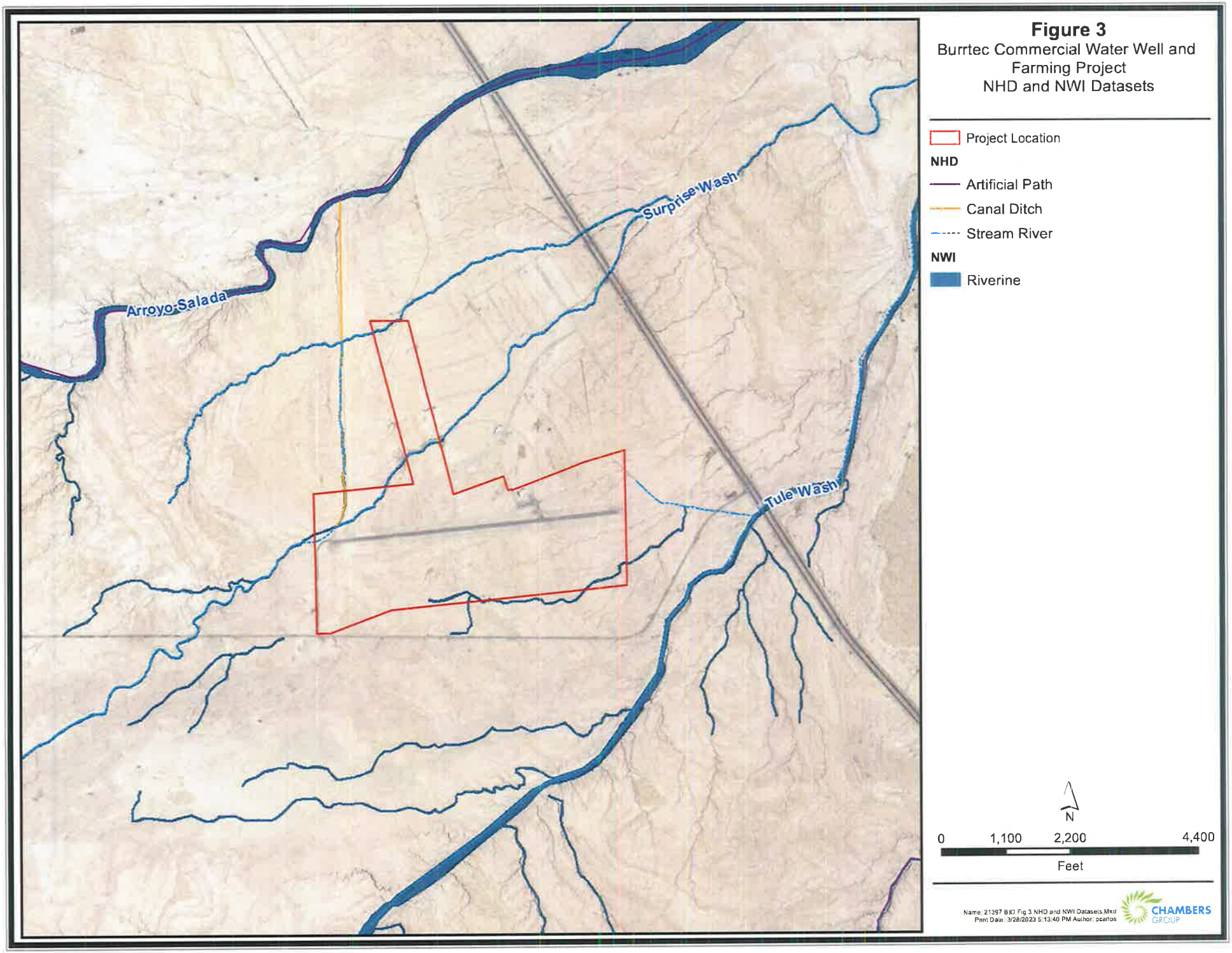

Figure 3
Burrtec Commercial Water Well and Farming Project
NHD and NWI Datasets

Project Location

NHD

Artificial Path

Canal Ditch

Stream River

NWI

Riverine

N

0 1,100 2,200 4,400

Feet

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5.3.1 Hydrology and Connectivity

The Survey Area is located within the Arroyo Salada and Tule Wash-Frontal Salton Sea Subwatersheds (HUC 12) of the West Salton Sea groundwater basin (USDA 2023) in Imperial County, California (Figure 4). These subwatersheds are bound by mountains of the Santa Rosa Mountains Wilderness to the north and the Anza-Borrego Desert State Park to the south, and by the Salton Sea to the east (Google 2023). Arroyo Salada and Tule Wash are the major water sources for the Arroyo Salada and Tule Wash-Frontal Salton Sea Subwatersheds. Based on topography and connectivity of the surrounding area visible on aerial maps (Google 2023), water is received from rain events in the southern Santa Rosa Mountains Wilderness, flowing southeastwardly through alluvial braided channels and ephemeral drainages including the Arroyo Salada and Tule Wash, eastwardly through the valley east of the Borrego Badlands, through the Survey Area and into the Salton Sea approximately 4 miles east of the Project. Ephemeral water features within the Survey Area flow into Arroyo Salada, Surprise Wash, and Tule Wash. Hydrological indicators in the field included break in the bank slope, mudcracks, knickpoints, ripples, soil development, change in sediment particle size distribution, and surface relief.

Figure 5 provides the groundwater basins containing the Survey Area (i.e., West Salton Sea). Figure 6 provides the location of the flood zones identified by Federal Emergency Management Agency (FEMA). A Special Flood Hazard Area (SFHA) runs through a portion of the Survey Area located north of the airport runway. The SFHA is designated as Zone AE (areas that have a 1 percent annual chance of flooding), and shaded Zone X (areas having a 0.2 percent annual chance of flooding).

5.3.2 Vegetation

Vegetation communities present in the Survey Area are described in Section 5.5 and are included in Figure 8. Vegetation characteristic of Arroyo Salada and Surprise Wash includes Creosote Bush – White Bursage Scrub, with banks dominated by creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Other minor drainages present in the Survey Area were primarily located within Creosote Bush – White Bursage Scrub and Creosote Bush Scrub habitats with bank vegetation typical of these upland vegetation communities.

5.3.3 Soils

No USDA soil data was available online for the Survey Area as of the time of preparation of this report (USDA 2023). Soils present within the Survey Area were poorly developed with variable levels of erodibility and permeability, as is characteristic of dryland watersheds (CDFW 2010). In general, topography of the Survey Area gradually slopes west to east in the direction of the Salton Sea. Elevation within the Survey Area ranges from approximately 75 feet bmsl on the western end to 124 feet bmsl on the southeastern end. Microtopography of the landscape within the Survey Area was variable, as the soil has been highly eroded over time by wind and sheet flow during heavy rain. No hydric soils were found during soil investigations within the Survey Area.

5.3.4 Wetlands

No wetland features (e.g., wetland plants, hydric soils) were identified within the Survey Area. Because this region only receives approximately 3 inches of rain a year, the washes identified within the Survey Area are most often dry and do not support distinct riparian/wetland vegetation.

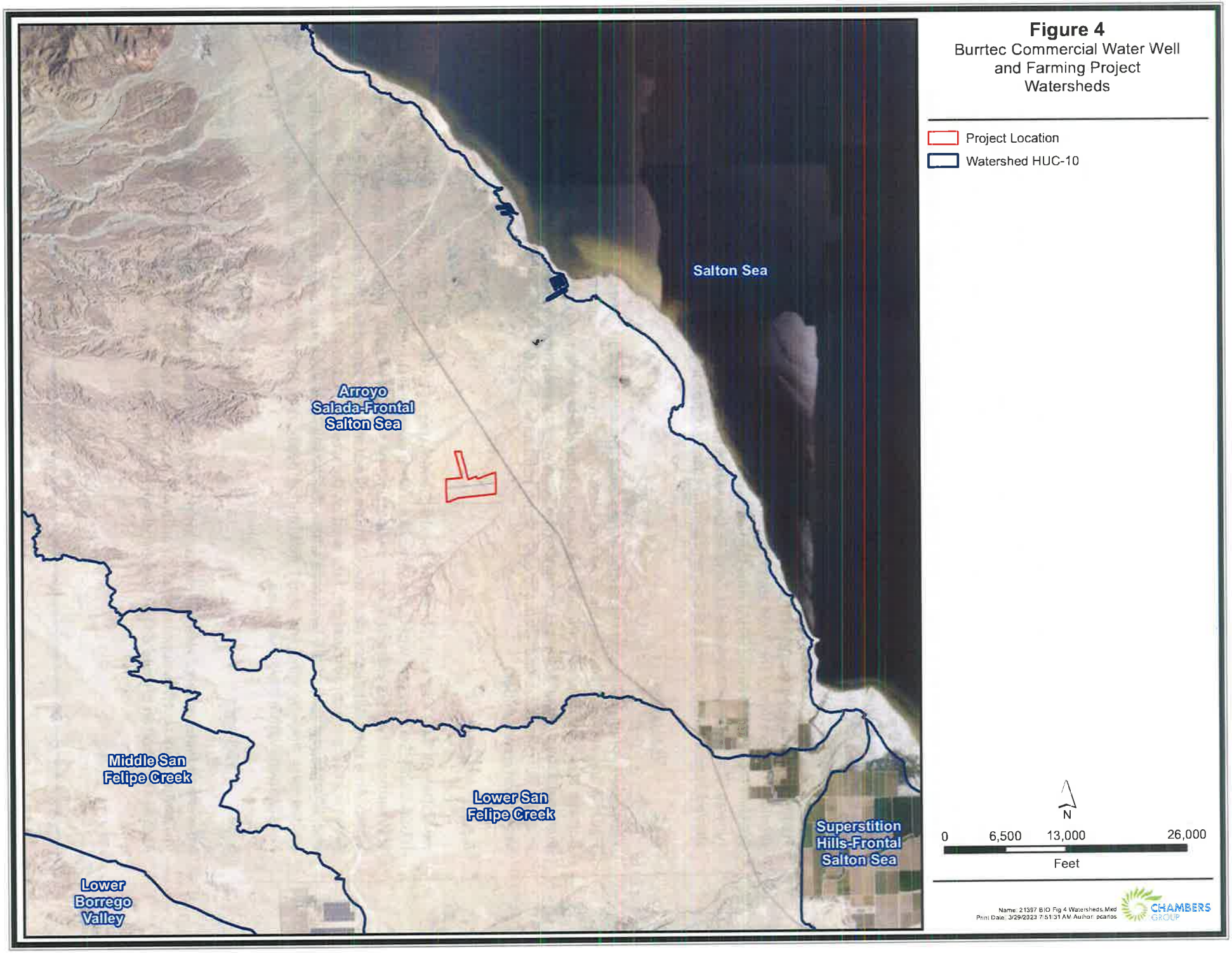
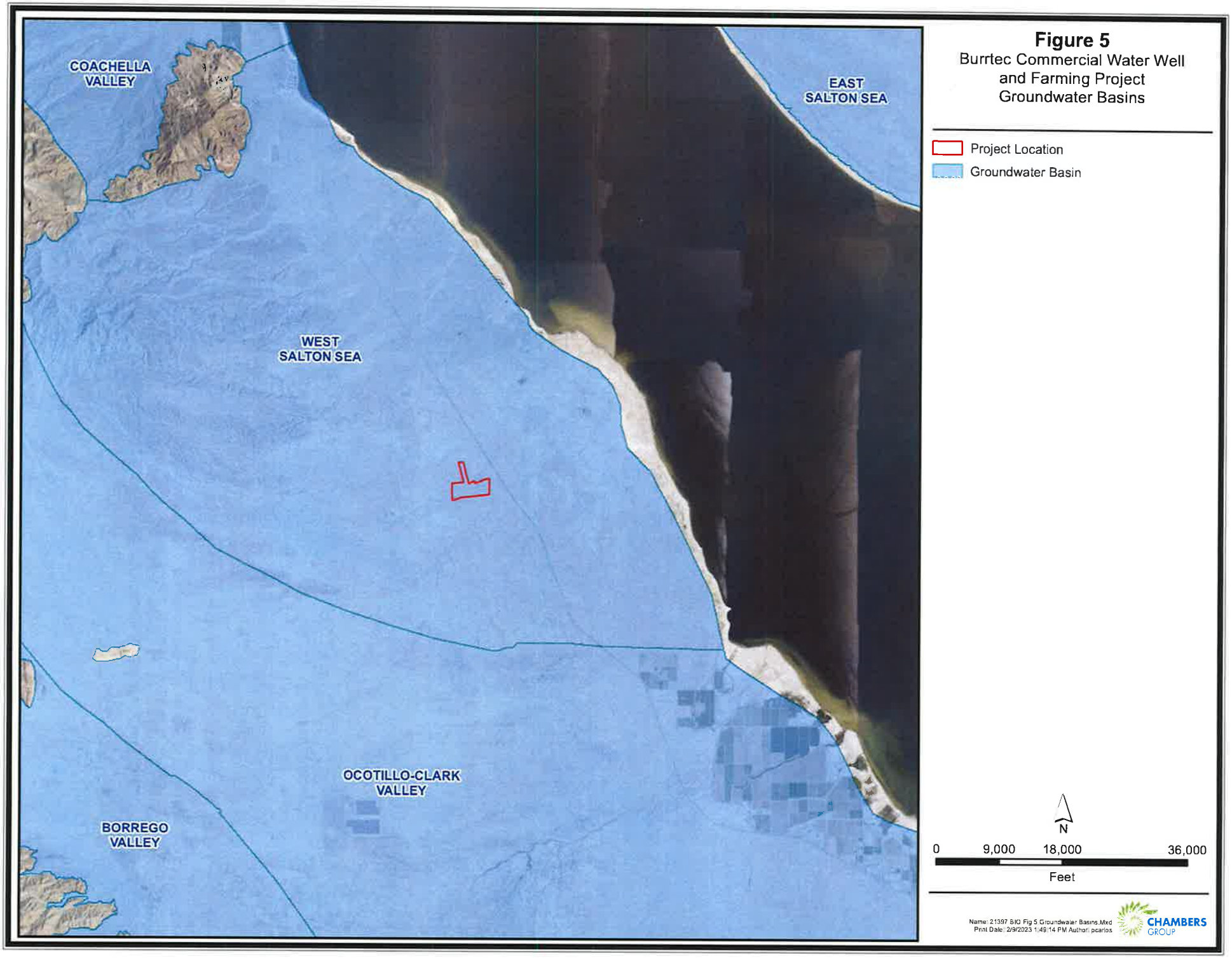


Figure 4
Burrtec Commercial Water Well and Farming Project
Watersheds

Project Location
Watershed HUC-10


COACHELLA VALLEY
EAST SALTON SEA
WEST SALTON SEA
OCOTILLO-CLARK VALLEY
BORREGO VALLEY
Figure 5
Burrtec Commercial Water Well and Farming Project
Groundwater Basins
Project Location
Groundwater Basin
N
0
9,000
18,000
36,000
Feet
Name: 21397 BIO Fig 5 Groundwater Basins.Mxd
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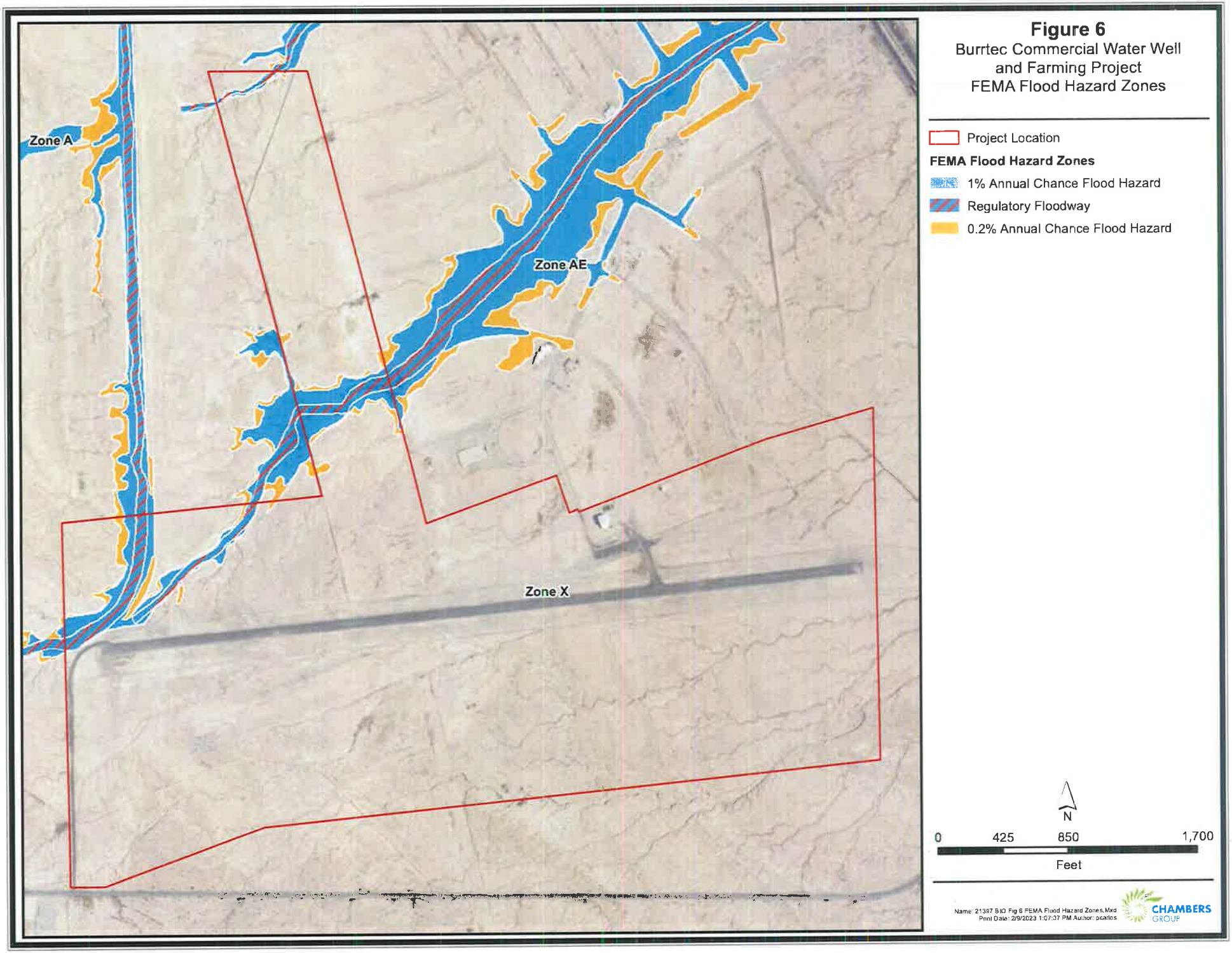
Zone A
Zone AE
Zone X
Figure 6
Burrtec Commercial Water Well
and Farming Project
FEMA Flood Hazard Zones
Project Location
FEMA Flood Hazard Zones
1% Annual Chance Flood Hazard
Regulatory Floodway
0.2% Annual Chance Flood Hazard
N
0
425
850
1,700
Feet
Name: 21387 BJO Fig 6 FEMA Flood Hazard Zones.Mxd
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5.3.5 Delineated Waters

Based on the NWI and NHD database search, several mapped drainage features run through the Survey Area, including three blue-line riverine systems occurring within the Survey Area of the proposed Project. The field delineation confirmed the presence of these three drainages (Drainages 1, 2, and 4, respectively). In addition, multiple tributaries (Drainages 1a and 1b; 2a and 2b) which branch off of Surprise Wash, one man-made ditch (Drainage 3a and 3b), and several tributaries to the drainages were observed within the Survey Area. Figure 7 provides the location of water features delineated within the Survey Area following the field investigations.

A total of 25,070 linear feet of ephemeral drainages were mapped within the Survey Area. Drainage features present within the Survey Area are analyzed in this report as Review Areas (RAs) and are displayed in Figure 7. All drainages present within the Survey Area are ephemeral. Drainages 1, 1A, and 1B ultimately flow into the Arroyo Salada Wash or Surprise Wash. Drainage 4 flows into the Tule Wash. All of the drainage features occurring with the Survey Area, except Drainage 2 eventually flow into either the Arroyo Salada Wash or Surprise Wash, both of which terminate in the Salton Sea, a TNW. Therefore, the drainages within the Survey Area may potentially be subject to USACE, CDFW, and RWQCB jurisdiction. The drainages are described below, and data recorded for the drainages specifically within the Survey Area is presented in Table 1. Completed OHWM forms representative of the water features identified are provided in Appendix B. Reference photographs were taken during this survey and are included in Appendix A.

As stated above, wind and sheet flow during rainstorm events have formed erosional features through the highly erosive soil over time; these features total 3.53 acres within the Survey Area (Figure 7). Topographic depressional features that do not have a defined streambed or stream bank and are not associated with a drainage feature are mapped as "swale" and total 0.23 acres within the Survey Area.

Drainage Systems 1 and 2: NWI/NHD Mapped Drainage – Surprise Wash

Drainage System 1 and 2, Surprise Wash, is a documented blue-line drainage by the NWI and NHD and eventually connects to Tule Wash approximately 2.7 miles northeast of the Survey Area and continues for 2.3 miles before it enters the Salton Sea. Surprise Wash is comprised of two main tributaries/washes (see Figure 3). Surprise Wash originates southwest of the Survey Area, just south of the Salton City Landfill, receives flow from rainfall events, and flows northeast towards the Salton Sea. Based on the NHD dataset and field observations, the historical flow path of Surprise Wash was altered by two man-made berms, and currently directs flow northward toward the Arroyo Salada, presumably to protect the Salton Sea Airport and a housing tract from large flood events.

The northern wash (Drainage 1) is intercepted by a western berm which currently redirects flow to the Arroyo Salada, approximately 0.4 miles north of the Survey Area. The southern wash (Drainage 2) is also intercepted by the western berm located immediately north of the Salton Sea Airport runway within the southwestern portion of the Survey Area. The berm redirects flow from Surprise Wash northeastward approximately 0.2 miles within the Survey Area and continues northward for approximately 1 mile until it converges with the Arroyo Salada. Currently, sheet flow from the surrounding area continues northeastward along the historic channelized pathway to a second berm located along the western boundary of the Survey Area. This second berm directs sheet flow for approximately 0.30 miles north, then crosses northeast for approximately 0.18 mile through the northern portion of the Survey Area, then

continues northeast for approximately 0.25 miles where it appears to terminate north of the housing tract and turns into sheet flow.

Drainage 1

Drainage 1, the northern tributary of Surprise Wash, is intercepted by the western berm, approximately 0.1 mile west of the Survey Area. This diverted path represents a "new normal" for the flow of Drainage 1. Saturation resulting from this new hydrological pattern is visible on aerial photography.

Drainage 1a

The location where Drainage 1 historically crossed the Survey Area is still visible and although the hydrogeomorphology has changed due to the diversion of Surprise Wash, water from rain events through sheet flow still enter the historic drainage pathway and channelization continues to occur through the northern portion of the Survey Area. It has a definable bed and bank and is mapped as Drainage 1a (see Figure 7).

Drainage 1a had vertically defined cut banks with a single flow channel within the banks. The combined length of Drainage 1a within the Survey Area is 1,346 linear feet. The OHWM width of Drainage 1a ranges from approximately 20 to 94 feet and averages approximately 57 feet. The BTB width ranges from approximately 22 to 96 feet and averages approximately 59 feet. Sinuosity of the drainage system is moderate. Hydrological indicators within the active floodplain include a break in the bank slope, mudcracks, soil development, change in sediment particle size distribution, exposed roots and wracking. The active floodplain and banks of Drainage 1a contain sparse tamarisk (*Tamarix* spp.), white bursage, scattered annuals, and non-native grass. Scattered tamarisk individuals are present within the low terrace and active floodplain of Drainage 1a, where prolonged saturation occurs after rain events. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel and pebbles with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 1b

Drainage 1b is a tributary to Drainage 1a. It originates immediately between the western berm and the western Survey Area boundary, flows northeast through the Survey Area for approximately 50 linear feet, and eventually connects to Drainage 1a just north of the Survey Area. It receives flow from sheet flow from the surrounding area during storm events. Drainage 1b has mostly defined cut banks with a single flow channel within the banks. This feature is approximately 156 linear feet within the Survey Area. The OHWM width of Drainage 1b typically ranges from approximately 3.8 to 17.5 feet and averages approximately 10.5 feet. The BTB width typically ranges from approximately 4.5 to 18.2 feet and averages approximately 11.4 feet. Sinuosity of the drainage system is moderate. Hydrological indicators within the active floodplain include a break in the bank slope, mudcracks, change in sediment particle size distribution, and wracking. The active floodplain and banks of Drainage 1b contain fourwing saltbush (*Artiplex canescens*), scattered annuals, and non-native grass. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 2

Drainage 2, the southern tributary of Surprise Wash, and is intercepted by the western berm in the southwestern portion of the Survey Area, north of the Salton Airport runway. The intercepted water flows northward along a man-made earthern canal which eventually connects to the northern tributary of Surprise Wash (Drainage 1) and into the Arroyo Salada. Currently, sheet flow from the surrounding area including a paved access road and the airport runway continues northeastward within the historic channel for approximately 0.20 mile within the Survey Area, exits the Survey Area for 0.10 mile to a second berm located along the western boundary of the Survey Area. At this location, Drainage 2 flows two ways: (Drainage 2a) along the second man-made berm for approximately 0.30 miles north, then crosses northeast for approximately 0.18 mile through the northern portion of the Survey Area, then continues northeast for approximately 0.25 miles where it appears to terminate north of the housing tract and turns into sheet flow; and (Drainage 2b) a breach in the berm has allowed surface flow to continue east/northeastward for 0.12 mile through the Survey Area before terminating in a depressional feature just east of the Survey Area boundary. As stated previously, the historical flow path of Surprise Wash has been altered as a result of the residential area to the east of the Survey Area. Drainage 2 is ephemeral and was dry at the time of the survey.

Drainage 2a

Drainage 2a begins north of the runway for approximately 0.18 mile within the Survey Area, exits for approximately 0.12 mile outside of the Survey Area, then reenters at the berm. Drainage 2a continues for approximately 0.45 mile north and northeast within the man-made berm along the western boundary of the Survey Area and eventually connects to Drainage 1a. This feature is approximately 5,261 linear feet within the Survey Area. Drainage 2a has defined cut banks with a single flow channel within the banks. The OHWM width typically ranges from approximately 1.8 to 5.8 feet and averages approximately 3.8 feet. The BTB width typically ranges from approximately 3.5 to 10.8 feet and averages approximately 7.2 feet. Sinuosity of the drainage system is moderate. Hydrological indicators within the active floodplain include a break in the bank slope, mudcracks, soil development, change in sediment particle size distribution, and change in vegetation. The active floodplain and banks of Drainage 2a contain scattered annuals and non-native grass. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 2b

From the berm location, Drainage 2b runs through the Survey Area for approximately 0.12 mile before terminating in a depressional feature. This feature is approximately 2,721 linear feet within the Survey Area. The OHWM width of Drainage 2b ranges from approximately 49.5 to 54.8 feet and averages approximately 52.2 feet. The BTB width ranges from approximately 51.5 to 55.3 feet and averages approximately 53.4 feet. Sinuosity of the drainage system is moderate. Hydrological indicators within the active floodplain include a break in the bank slope, mudcracks, soil development, change in sediment particle size distribution, exposed roots and change in vegetation. The active floodplain and banks of Drainage 2b contain tamarisk, Anderson's saltbush (*Lycium andersonii*), scattered annuals, and non-native grass. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 3 (Not Previously Documented by NWI or NHD)

Drainage 3 is located south of the airport runway and appears to have formed as a result of a third man-made berm placed along the southern side of the runway in order to direct sheet flow away from the airport. This feature was not previously documented by the NWI or NHD. The drainage originates as two main tributaries in the western portion of the Survey Area (Drainage 3a and 3b), receiving surface water from sheet flow from the surrounding area and road runoff through a culvert, and continues to flow east until it exits the Survey Area into another man-made drainage feature located outside the Survey Area, where it eventually connects southwestwardly to Tule Wash, a TNW. Drainage 3 is ephemeral and was dry at the time of the survey. The flow path described below is based on other field indicators.

Drainage 3a

Drainage 3a has defined cut banks with a single flow channel within the banks. The length of Drainage 3a within the Survey Area is approximately 6,965 linear feet. The OHWM width of Drainage 3a typically ranges from approximately 3.8 to 10 feet, and averages approximately 6.9 feet. The BTB width typically ranges from approximately 4.6 to 12.3 feet, and averages approximately 8.5 feet. Sinuosity of the drainage system is low. Hydrological indicators within the active floodplain include a change in average sediment texture, break in bank slope, mudcracks, and change in vegetation. Drainage 3a contains scattered early successional herbaceous vegetation and non-native grass. The banks were mostly unvegetated with creosote bush, white bursage, and scattered annuals. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel and pebbles with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 3b

Drainage 3b occurs just south of Drainage 3a and begins as sheet flow near the middle of the Survey Area and eventually forms channelization near the eastern portion of the Survey Area. This feature flows northeast through the Survey Area and connects to Drainage 3a just east of the Survey Area boundary. It was not previously documented by the NWI or NHD. Drainage 3b is ephemeral and was dry at the time of the survey. The flow path described below is based on other field indicators.

Drainage 3b has defined cut banks with a single flow channel within the banks. The length of Drainage 3b within the Survey Area is approximately 1,615 linear feet. The OHWM width of Drainage 3b typically ranges from approximately 3.5 to 6.7 feet, and averages approximately 5 feet. The BTB width typically ranges from approximately 4 to 8.2 feet, and averages approximately 6.1 feet. Sinuosity of the drainage system is moderate. Hydrological indicators within the active floodplain include a change in average sediment texture, break in bank slope, mudcracks, and change in vegetation. Drainage 3b contains scattered early successional herbaceous vegetation and non-native grasses. The banks were mostly unvegetated with creosote bush, white bursage, scattered annuals, and non-native grass. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel and pebbles with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Drainage 4

Drainage 4 is an ephemeral drainage and is a mapped NWI blue-line flowing in an east/northeastward direction through the southern portion of the Survey Area. The field investigation confirmed that the feature enters the Survey Area through two culverts located near the southwest corner of the Survey Area from an access road (receives surface water from a NWI blueline feature southwest of the Survey Area) and flows east/northeast along the southern boundary. Man-made berms direct flow northeast to prevent flow toward the airport. Drainage 4 exits the Survey Area where it connects to another small man-made drainage, flows southeast ultimately connecting it to Tule Wash. Drainage 4 is ephemeral and was dry at the time of the survey. The flow path described below is based on other field indicators.

Drainage 4 had mostly defined cut banks with a single flow channel within the banks. The combined length of Drainage 4 within the Survey Area is 7,006 linear feet The OHWM width of Drainage 4 typically ranges from approximately 4.5 to 10.9 feet and averages approximately 7.7 feet. The BTB width typically ranges from approximately 5 to 12 feet and averages approximately 8.5 feet. Sinuosity of Drainage 4 is moderate. Hydrological indicators within the active floodplain include a break in the bank slope, mudcracks, soil development, change in sediment particle size distribution, exposed roots and wracking. The active floodplain and banks of Drainage 4 contain creosote bush, white bursage, scattered annuals, and non-native grass. The substrates within the channel bottoms are generally loose and unconsolidated and composed mostly of fine sand and scattered gravel and pebbles with varying particle size up to 0.2 inch. The bank substrates are consolidated and composed mostly of silt.

Non-Jurisdictional Features

There are several erosional and sheet flow features that occur throughout the Survey Area. Many of the erosional features are present as small gullies, which are forms of longitudinal (incising) erosion. The erosional cuts are often deeper than they are wide, with very steep banks and small beds. Gullies are younger than streams in geologic age and lack an OHWM. They are commonly found in this area, which consists of low-density vegetative cover and soils that are highly erodible. Once a gully is formed, it conveys sheet flow from infrequent and short duration flows. Based on the field survey,. These erosional features terminate before connecting to any other mapped hydrological features.

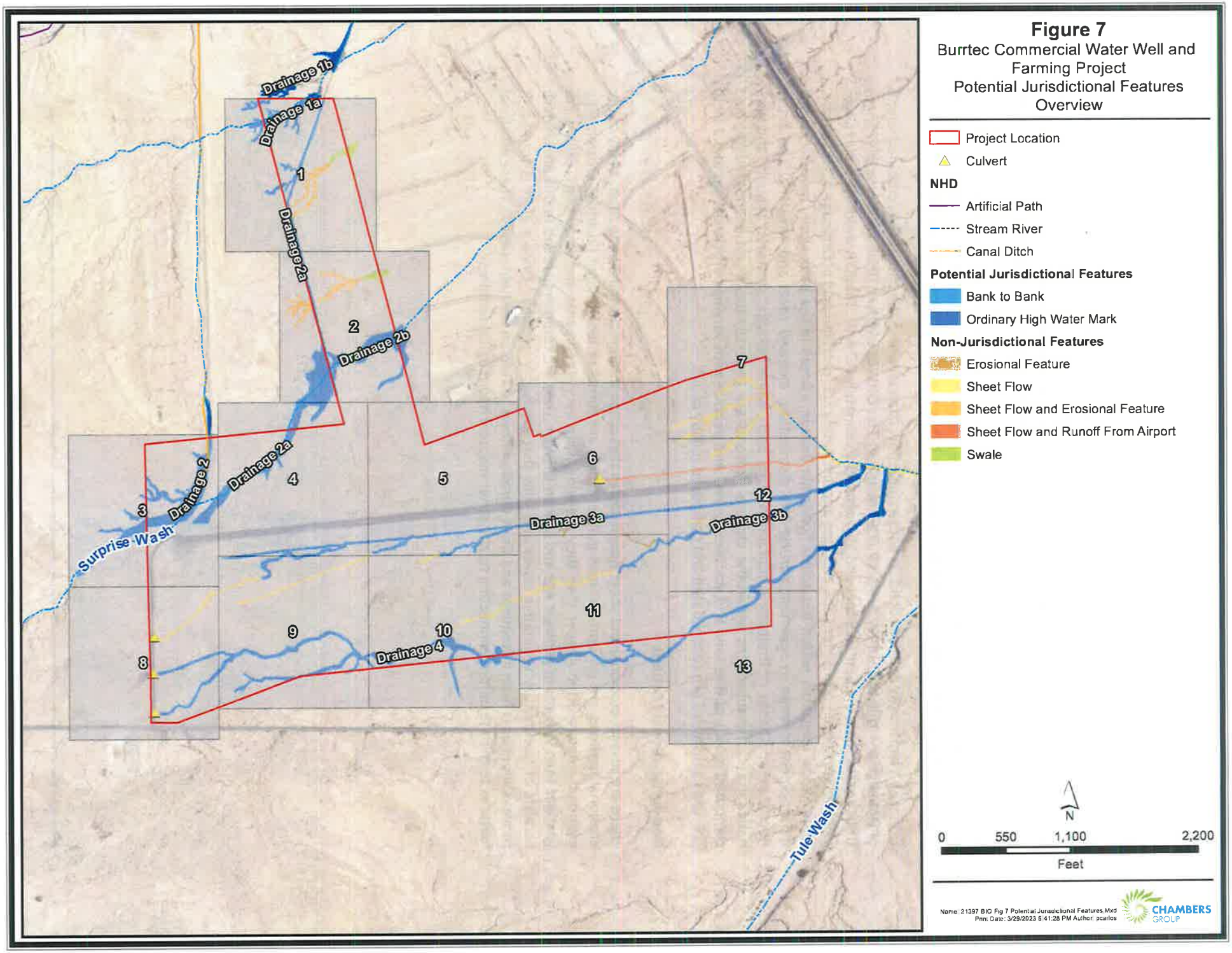

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features Overview

- Project Location
- Culvert

NHD

- Artificial Path
- Stream River
- Canal Ditch

Potential Jurisdictional Features

- Bank to Bank
- Ordinary High Water Mark

Non-Jurisdictional Features

- Erosional Feature
- Sheet Flow
- Sheet Flow and Erosional Feature
- Sheet Flow and Runoff From Airport
- Swale

N

0 550 1,100 2,200

Feet

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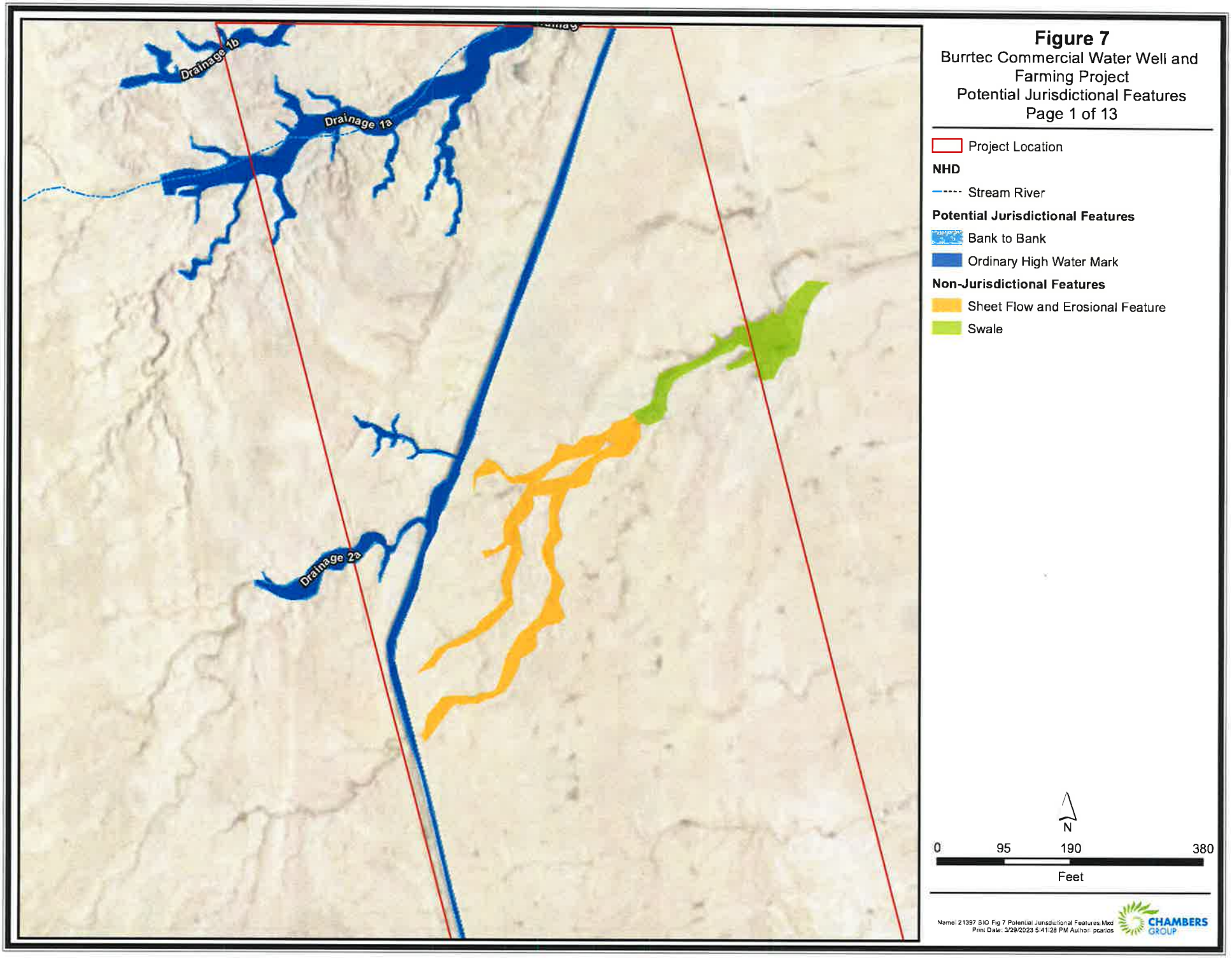

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 1 of 13

- Project Location

NHD

- Stream River

Potential Jurisdictional Features

- Bank to Bank
- Ordinary High Water Mark

Non-Jurisdictional Features

- Sheet Flow and Erosional Feature
- Swale

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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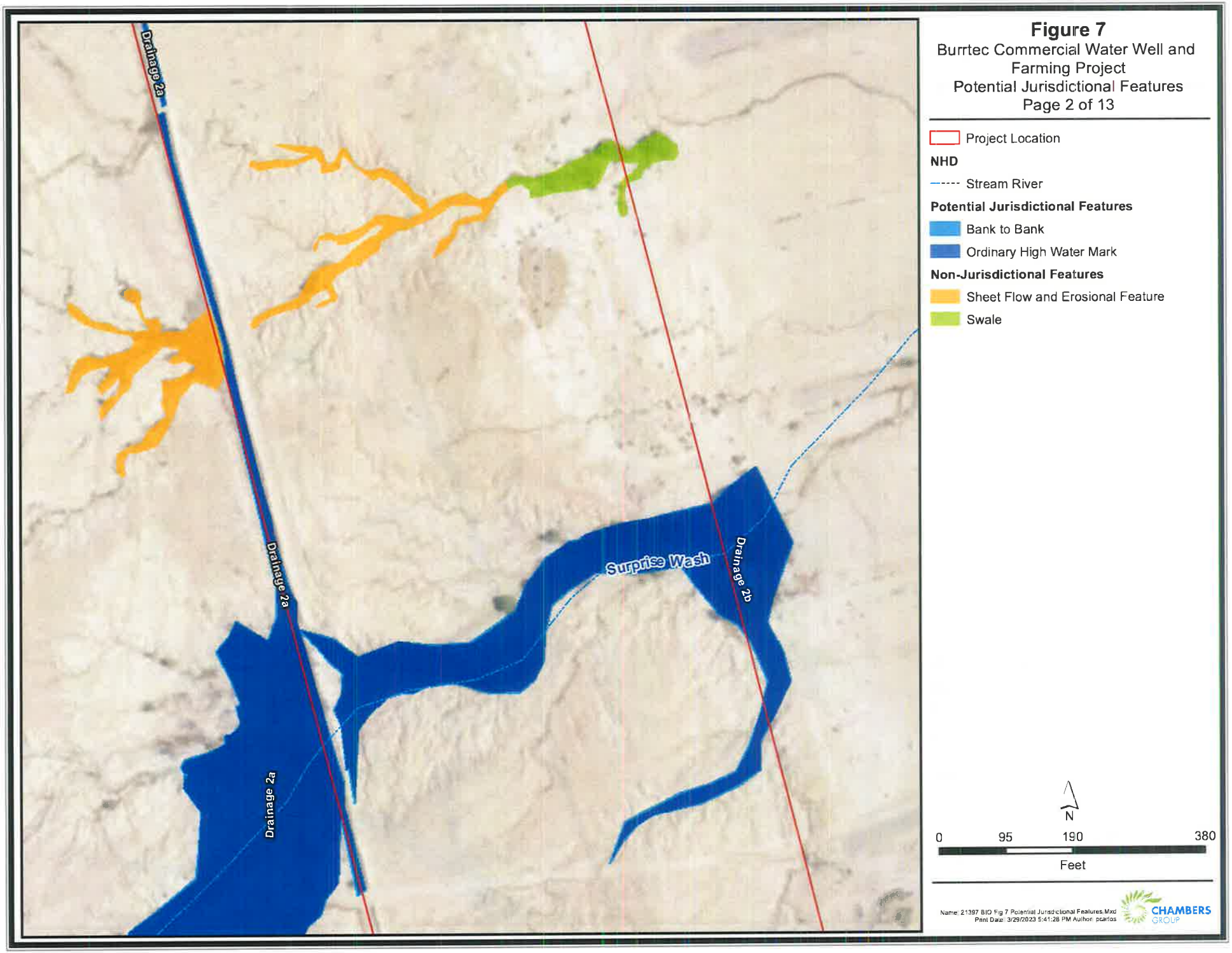

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 2 of 13

Project Location

NHD

Stream River

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow and Erosional Feature

Swale

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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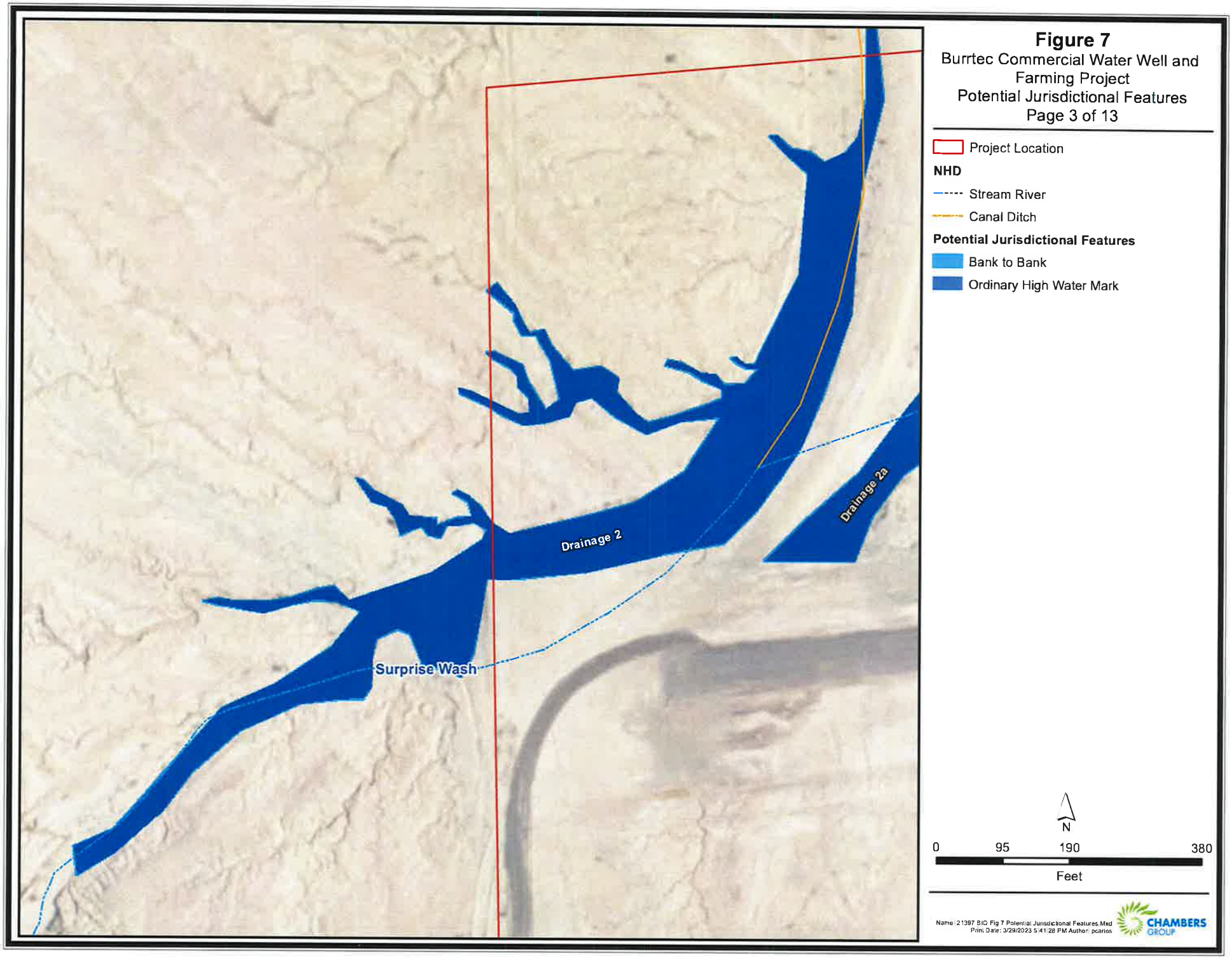

Figure 7
Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 3 of 13

Project Location

NHD

Stream River

Canal Ditch

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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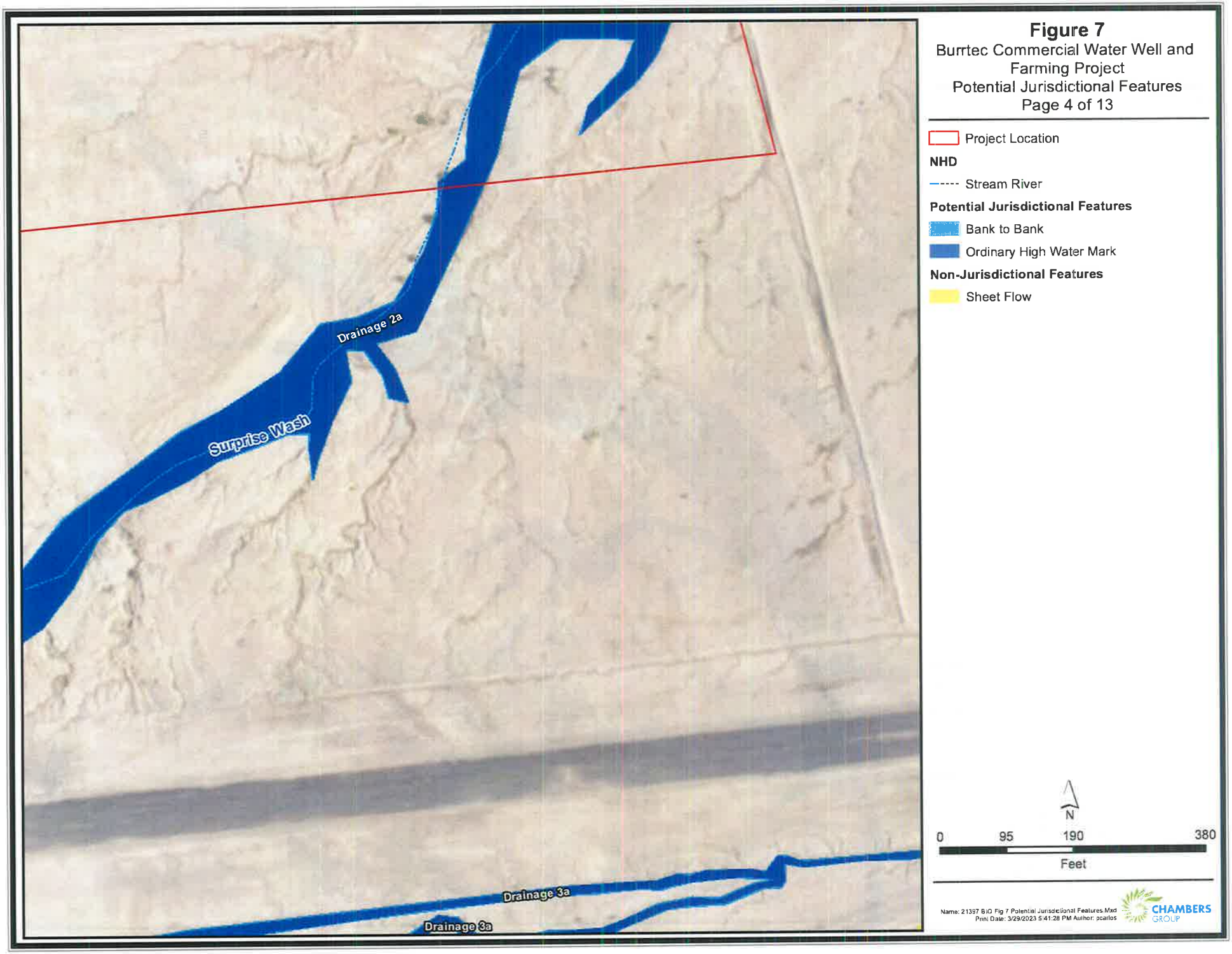

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 4 of 13

Project Location

NHD

Stream River

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BJO Fig 7 Potential Jurisdictional Features.Mxd
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Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 5 of 13

Project Location

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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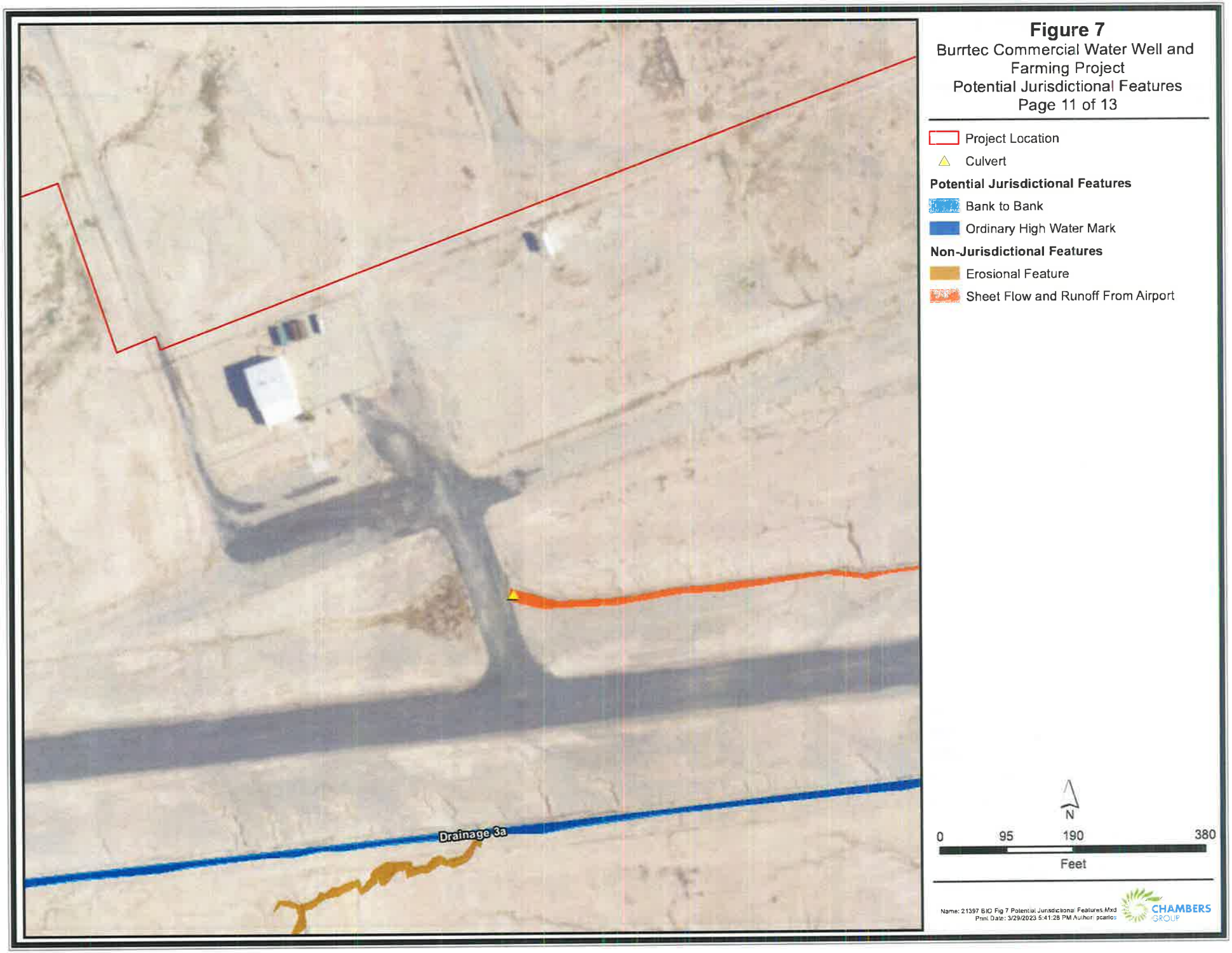

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features

- Project Location
- Culvert

Potential Jurisdictional Features

- Bank to Bank
- Ordinary High Water Mark

Non-Jurisdictional Features

- Erosional Feature
- Sheet Flow and Runoff From Airport

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 10 of 13

Project Location

NHD

Stream River

Non-Jurisdictional Features

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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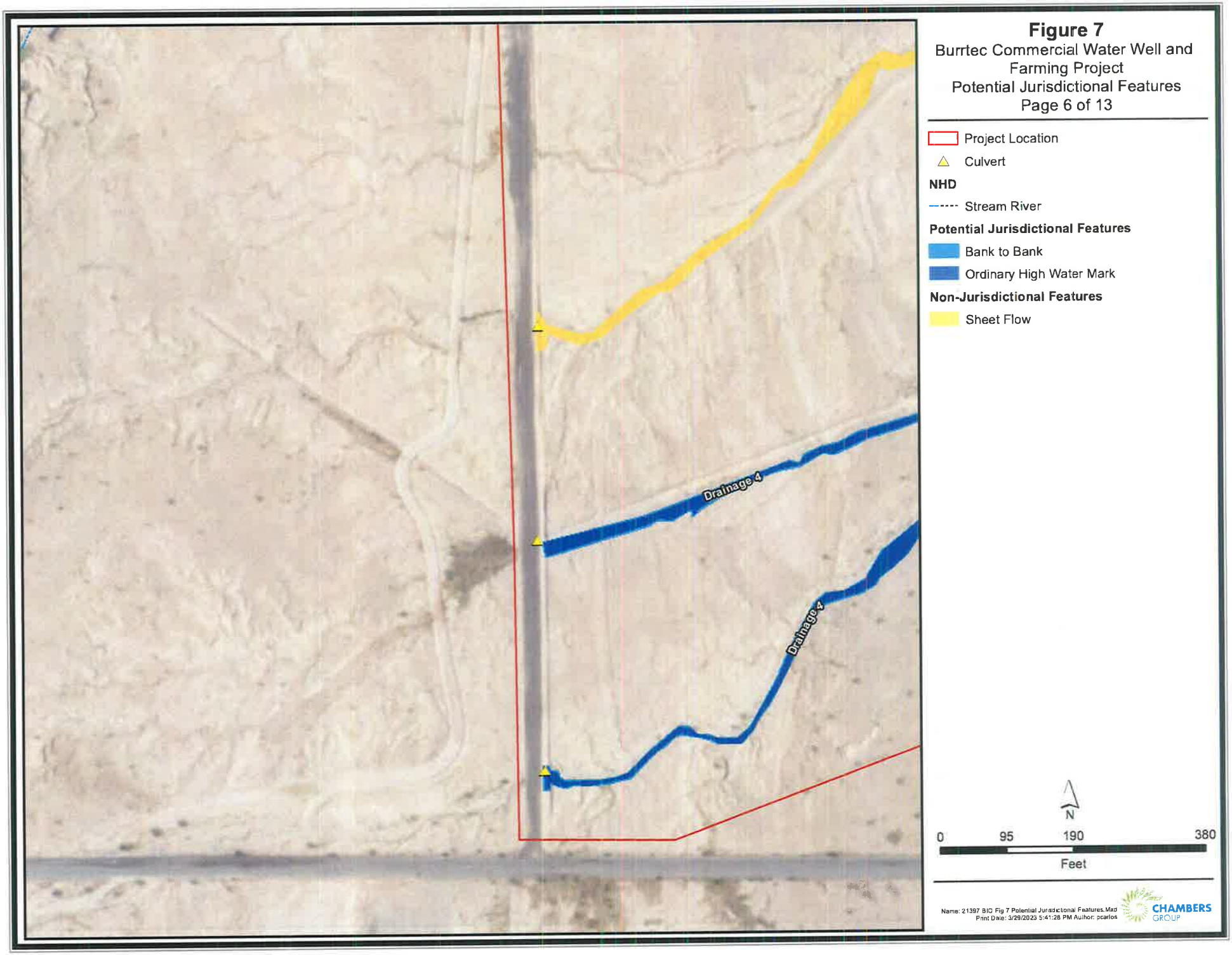

Figure 7

Burrtec Commercial Water Well and Farming Project

Potential Jurisdictional Features

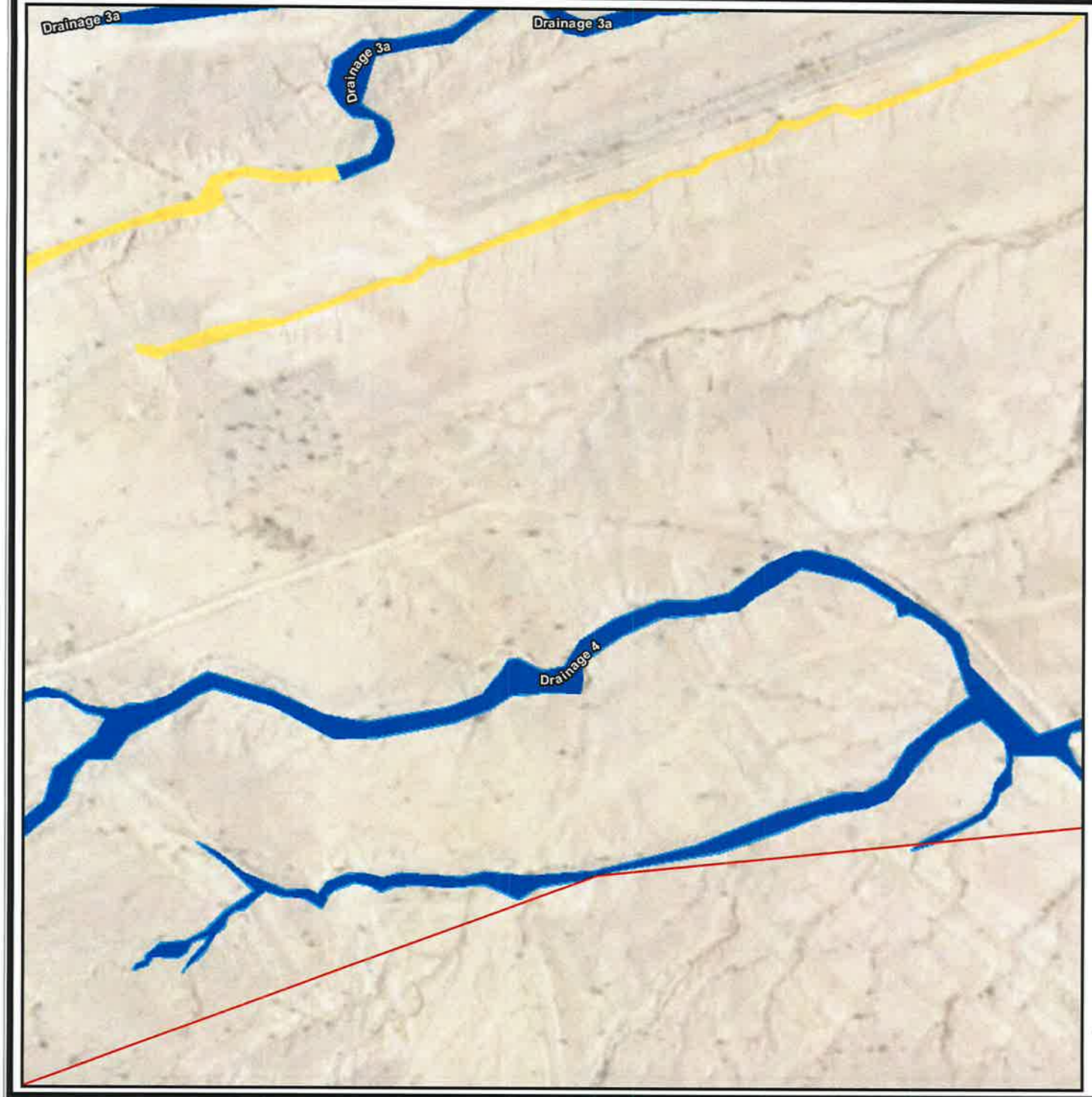

Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 7 of 13

Project Location

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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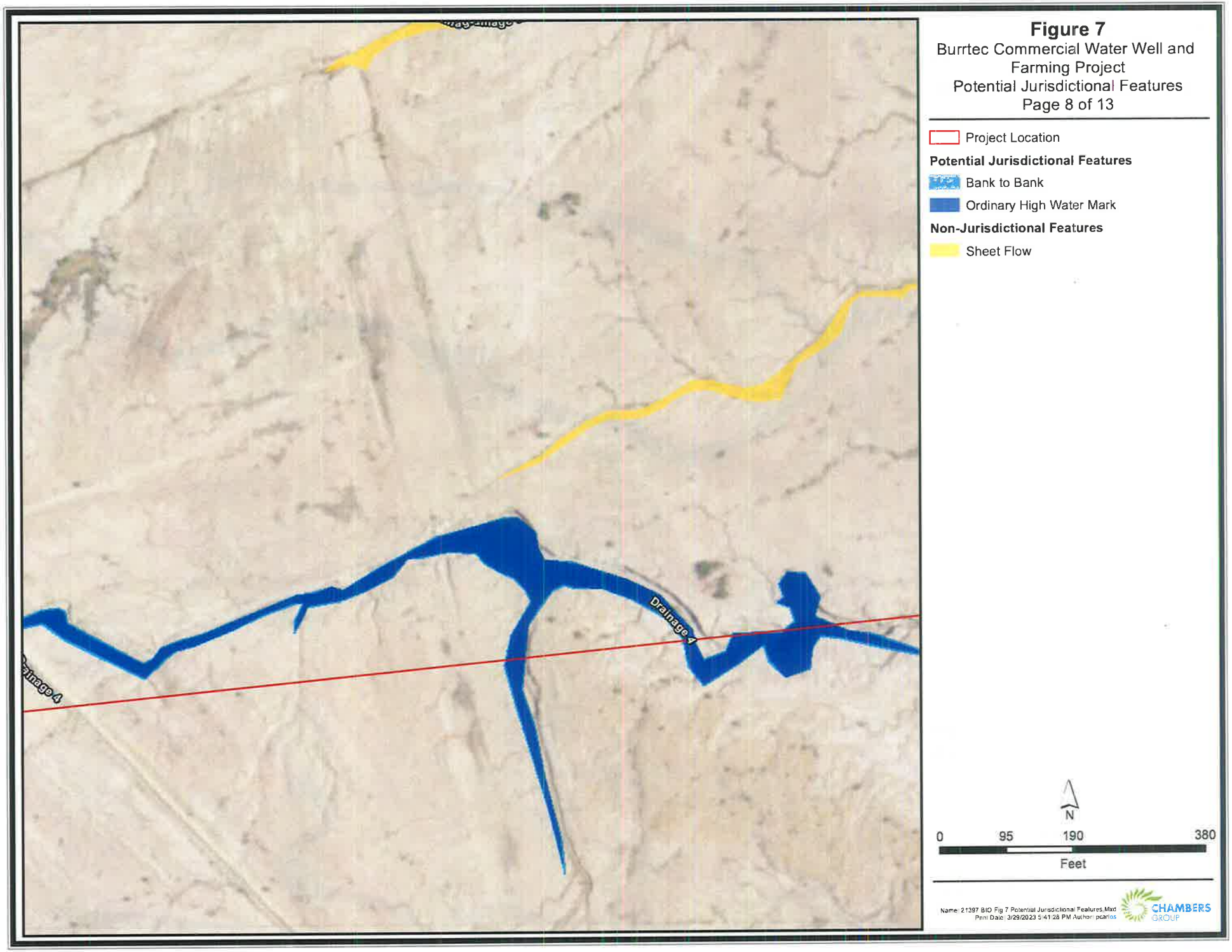

Figure 7
Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 8 of 13

Project Location

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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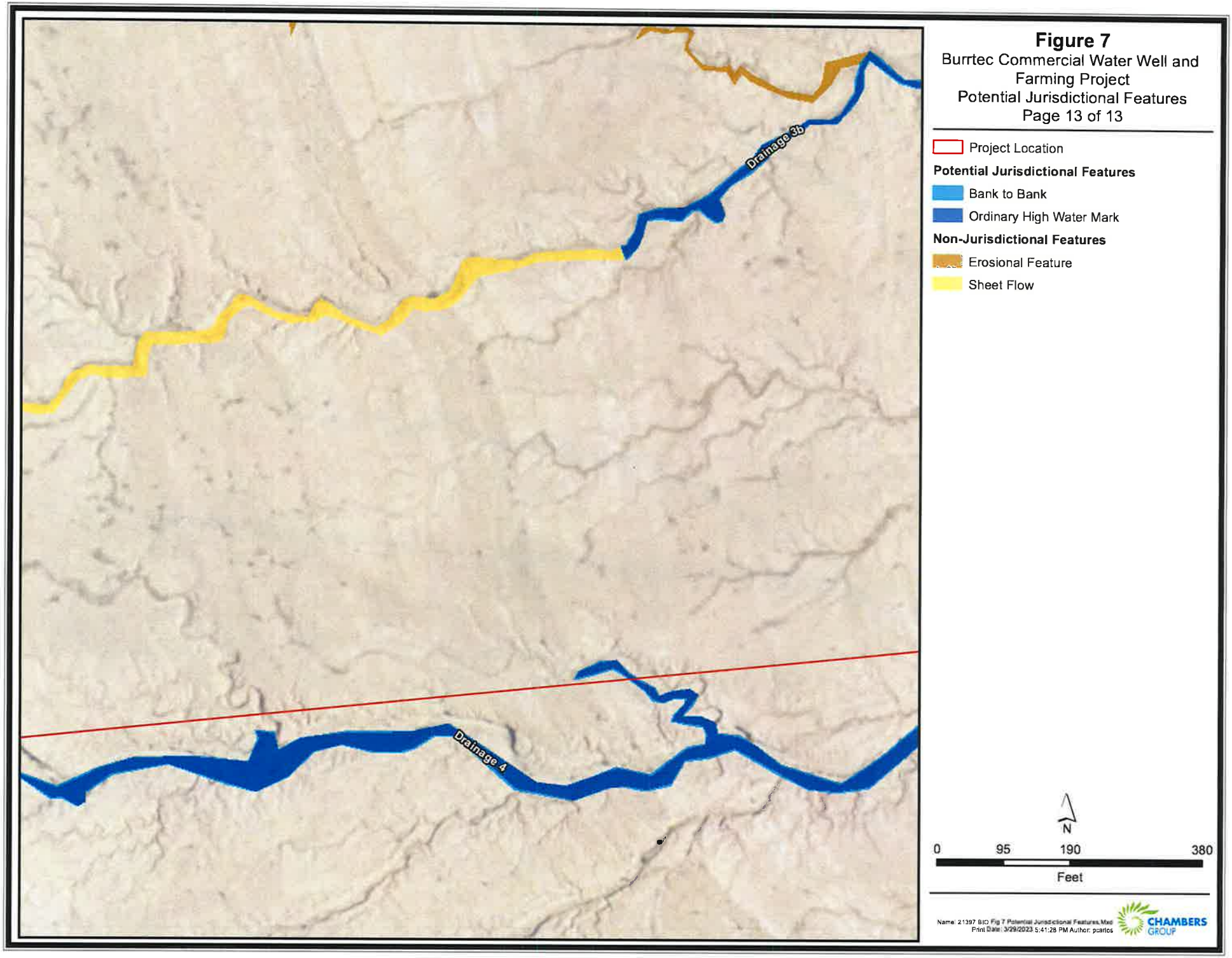

Figure 7
Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 13 of 13

Project Location

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Erosional Feature

Sheet Flow

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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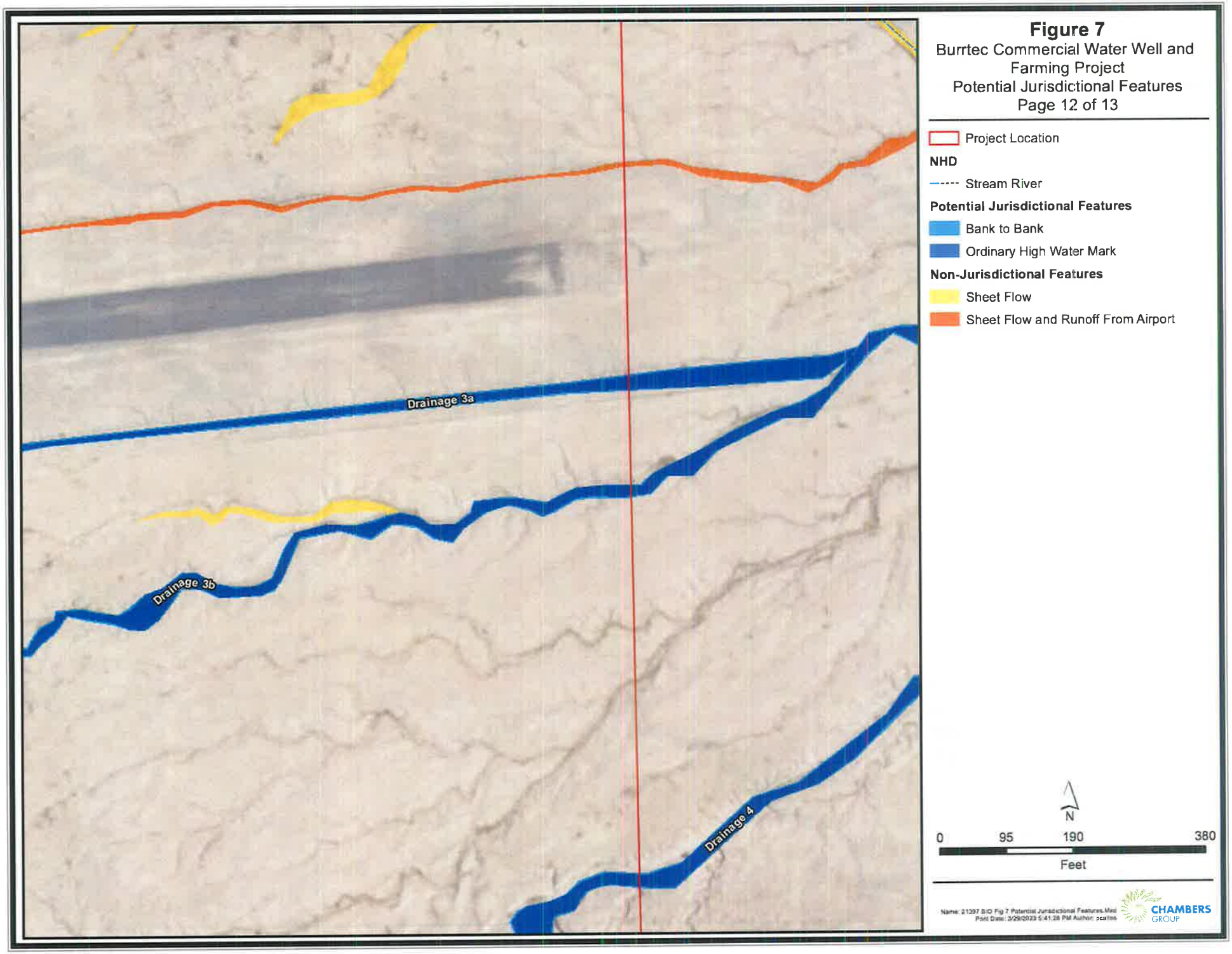

Figure 7
Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 12 of 13

Project Location

NHD

Stream River

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

Non-Jurisdictional Features

Sheet Flow

Sheet Flow and Runoff From Airport

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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Figure 7

Burrtec Commercial Water Well and Farming Project
Potential Jurisdictional Features
Page 13 of 13

Project Location

Potential Jurisdictional Features

Bank to Bank

Ordinary High Water Mark

N

0 95 190 380

Feet

Name: 21397 BIO Fig 7 Potential Jurisdictional Features.Mxd
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Table 1: Summary of Jurisdictional Features

Water Resource ID	Waters Entry/Start Location	Waters Exit Location	Estimated amount of aquatic resource in review area			Type of aquatic resource	Jurisdictional authority to which the aquatic resource "may be" subject
			OHWM Width (feet)	BTB Width (feet)	Linear Feet		
Drainage 1a	33.241030, -115.961527 Re-enters: 33.250879, -115.958230	33.243012, -115.959719 Re-exits: 33.250986, -115.957933	57	59	1,346	Ephemeral drainages	USACE, RWQCB, CDFW
Drainage 1b	33.250418, -115.958094	33.250978, -115.956844	10.5	11.4	156	Ephemeral drainages	USACE, RWQCB, CDFW
Drainage 2a*	33.241034, -115.960039	33.250968, -115.956411	3.8	7.2	5,261	Ephemeral drainages	USACE, RWQCB, CDFW
Drainage 2b	33.244549, -115.956303	33.245330, -115.954457	52.2	53.4	2,721	Ephemeral drainages	RWQCB CDFW
Drainage 3a	33.240207, -115.959310	33.241394, -115.944080	6.9	8.5	6,965	Ephemeral drainages	USACE, RWQCB, CDFW
Drainage 3b	33.239105, -115.951409	33.240971, -115.944084	5	6.1	1,615	Ephemeral drainages	USACE, RWQCB, CDFW
Drainage 4	33.236562, -115.961352	33.239447, -115.944066	7.7	8.5	7,006	Ephemeral drainages	USACE, RWQCB, CDFW

* Drainage 2a includes approximately 2,126 linear feet of the southern tributary of Surprise Wash (Drainage 2) west of the berm within the Survey Area

5.4 SUMMARY OF JURISDICTIONAL FINDINGS

Error! Reference source not found. summarizes the jurisdictional waters by water feature by regulatory agency. Additional detail by agency is provided in the subsections below.

Table 2: Jurisdictional Waters within Each Drainage System by Regulatory Agency

Feature	USACE		RWQCB		CDFW	
	Area (acres)	Linear Feet	Area (acres)	Linear Feet	Area (acres)	Linear Feet
Drainage 1a	0.36	1,346	0.36	1,346	0.41	1,346
Drainage 1b	0.03	156	0.03	156	0.04	156
Drainage 2a	2.63	5,261	2.63	5,261	4.57	5,261
Drainage 2b	N/A	N/A	N/A	N/A	1.29	2,721
Drainage 3a	1.39	6,965	1.39	6,965	1.71	6,965
Drainage 3b	0.43	1,615	0.43	1,615	0.50	1,615
Drainage 4	2.43	7,006	2.43	7,006	2.75	7,006
Total	7.27	22,349	7.27	22,349	11.27	25,070

N/A: Ephemeral waters not subject to USACE/RWQCB jurisdiction.

5.4.1 USACE Jurisdiction

The USACE regulates discharge of dredged or fill material into Waters of the U.S. (WoUS). These waters would include wetland and non-wetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the Clean Water Act (CWA) is founded on a connection, or nexus, between the water body in question an interstate commerce. This connection may be direct, through a tributary system linking a stream channel with TNW (i.e., Arroyo Salada, Surprise Wash, and Tule Wash all enter the Salton Sea, a TNW). Based on database review and field observations during the delineation, all the ephemeral drainages, with the exception of tributary Drainage 2b, identified with the Survey Area have connectivity to a TNW (significant nexus). Therefore, approximately 7.26 acres were identified within the Survey Area, and drainages identified during the delineation may be subject to potential USACE jurisdiction (WoUS) pursuant to Section 404 of the CWA.

5.4.2 CDFW Jurisdiction

There are a total of 11.27 acres within the Survey Area that have upland vegetated BTB within the Survey Area that may be considered jurisdictional waters regulated by CDFW's Lake and Streambed Alteration Agreement program. CDFW's jurisdiction extends from the top of bank to top of bank and any adjacent wetlands or riparian canopies. All the ephemeral drainage features provide surface waters when water is present and are potentially considered State waters.

5.4.3 RWQCB Jurisdiction

RWQCB jurisdiction includes all USACE jurisdictional areas, OHWMs, and any other features that have an effect on surface or subsurface water quality within California. The RWQCB would have jurisdiction over surface waters, which may be identified as ephemeral waters, including those indicated by a change in the average sediment texture, a change in vegetation cover, and/or a break in bank slope. A total of 7.27 acres of non-wetland waters of the State potentially under the jurisdiction of the RWQCB occur in the Survey Area. The limits of RWQCB jurisdiction were defined by the OHWM and surface waterbody features within the Survey Area.

5.5 HABITATS / VEGETATION COMMUNITIES

Eight vegetation communities were documented within the Survey Area: Fourwing Saltbush Scrub, Disturbed Fourwing Saltbush Scrub, Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, Desert Pavement, Tamarisk Thicket, Mesquite Thicket, and Anderson's Boxthorn Scrub. In addition, three other land types were present in the Study Area: Bare/Disturbed, a Man-Made Berm, and Developed. The following sections summarize the principal characteristics of the vegetation communities and land types, including the general locations of these areas within the Survey Area. Total acreages for each habitat type are presented in Table 3, and mapped vegetation communities and land types within the Survey Area are depicted in Figure 8. A list of all plant species observed during the survey efforts is included as Appendix C.

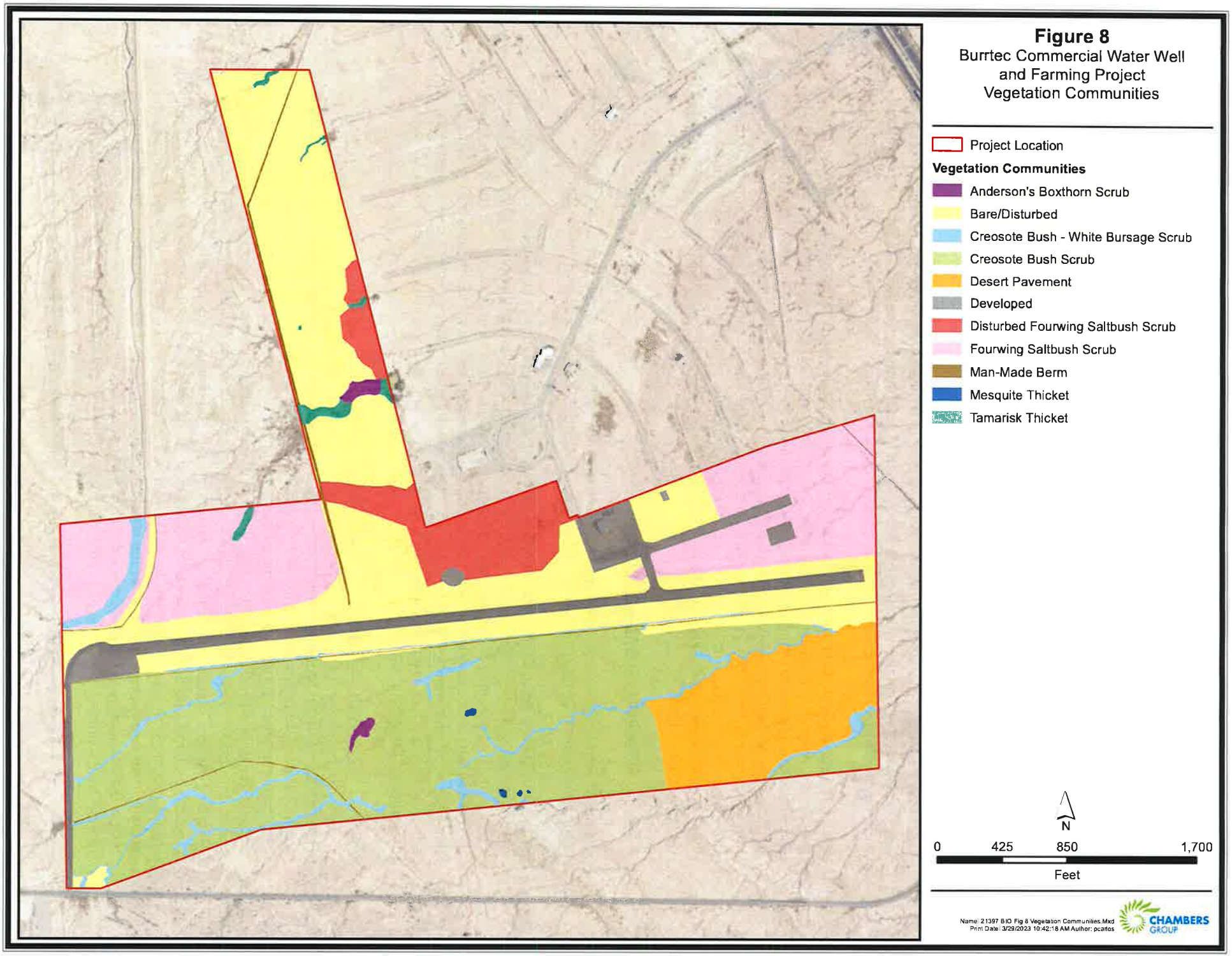
Figure 8
Burrtec Commercial Water Well and Farming Project
Vegetation Communities
Project Location
Vegetation Communities
Anderson's Boxthorn Scrub
Bare/Disturbed
Creosote Bush - White Bursage Scrub
Creosote Bush Scrub
Desert Pavement
Developed
Disturbed Fourwing Saltbush Scrub
Fourwing Saltbush Scrub
Man-Made Berm
Mesquite Thicket
Tamarisk Thicket
N
0
425
850
1,700
Feet
Name: 21397 BIO Fig 8 Vegetation Communities.Mxd
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5.5.1 Fourwing Saltbush Scrub

Fourwing Saltbush Scrub is found on playas, old beach and shores, lake deposits, dissected alluvial fans, rolling hills or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams (Sawyer et al. 2009). Fourwing saltbush is a widespread shrub in the western United States. Plants are long-lived and resistant to salt, cold, and drought; they tolerate saline, alkaline, boron, and gypsum soils, but they are not an indicator of these conditions (Sawyer et al. 2009). According to the Manual of California Vegetation (Second Edition) community membership rules, there must be greater than 2 percent absolute cover and greater than 50 percent relative cover of fourwing saltbush in the shrub canopy. Fourwing saltbush is dominant or co-dominant in the shrub canopy with other desert shrub species also present. Emergent trees may be present at low cover, including honey mesquite (*Prosopis glandulosa*). Shrubs are typically less than 3 meters in height with a canopy that is open or intermittent. The herbaceous layer is variable with seasonal herbs and non-native grasses (Sawyer et al. 2009).

Within the Survey Area, Fourwing Saltbush Scrub vegetation was present in the northwestern portion of the Survey Area in the vicinity of Drainage 2 and Drainage 2a, where vegetation was generally concentrated along many of the small sheet flow tributaries throughout the site, and in the northeastern portion of the Survey Area, north of the runway, where the vegetation was concentrated within the sheet flow (Appendix A, Photo 33). Fourwing saltbush dominated the sparse shrub layer with approximately 2 to 5 percent cover. Other native species occurring infrequently within the Survey Area included white bursage, hairy desert sunflower (*Geraea canescens*), and Spanish needles (*Palafoxia arida*). Total acreage is presented in Table 3.

5.5.2 Disturbed Fourwing Saltbush Scrub

Disturbed Fourwing Saltbush Scrub is similar to the Fourwing Saltbush Scrub community but contains disturbance from OHV trails and other anthropogenic activities.

Within the Survey Area, Disturbed Fourwing Saltbush Scrub vegetation was present in the northern portions of the site where there was heavy OHV use observed. This disturbed vegetation type occurred in a small area in the vicinity of the northern low and depressional areas where water collects and north of the runway where the vegetation was sparser. Native plant species found on the Survey Area typical of this vegetation community included fourwing saltbush with cover ranging from 2 and 5 percent and infrequently occurring creosote bush, hairy desert sunflower, and Spanish needles. Total acreage is presented in Table 3.

5.5.3 Creosote Bush Scrub

Creosote Bush Scrub is found in alluvial fans, bajadas, upland slopes, and minor intermittent washes. Soils are well drained, sometimes occurring with Desert Pavement (Sawyer et al. 2009). Creosote bush is a very long-lived evergreen shrub and extremely resistant to high temperatures. This species grows better in deep, sandy soils than other desert shrubs because of deep, spreading root systems. Creosote bush also grows on weakly developed soils of alluvial sites that permit water infiltration (Sawyer et al. 2009). According to the Manual of California Vegetation (Second Edition) community membership rules, creosote bush must be dominant or co-dominant, with no other shrub species having greater cover than creosote bush, with few exceptions. In addition, if white bursage or brittlebush (*Encelia farinosa*) are present, their cover is less than 3 times the cover of creosote bush, or if white bursage is present, it must be less than two times the cover of creosote bush. Shrubs are typically less than 3 meters in height with a canopy that is intermittent to open. Emergent trees may be present at low cover, including honey

mesquite or Joshua tree (*Yucca brevifolia*). The herbaceous layer is open to intermittent with seasonal annuals or perennial grasses (Sawyer et al. 2009).

Within the Survey Area, Creosote Bush Scrub vegetation was present throughout most of the southern portion of the Survey Area in the vicinity of Drainage 3a, Drainage 3b and Drainage 4 (Appendix A, Photo 34). Native plant species found within the Survey Area typical of this vegetation community included: creosote bush dominating the sparse shrub canopy with fourwing saltbush also occurring infrequently. Total acreage is presented in Table 3.

5.5.4 Creosote Bush – White Bursage Scrub

Creosote Bush – White Bursage Scrub is found within washes and rills, alluvial fans, bajadas, valleys, basins, upland slopes, mesas, and erosional highlands. Soils are well-drained, alluvial, colluvial, sandy, sometimes underlain by a hardpan that may be calcareous, igneous and/or covered with Desert Pavement (Sawyer et al. 2009). Stands with taller creosote bush and shorter white bursage shrubs represent the major vegetation type of California's hot deserts (Sawyer et al. 2009). According to the Manual of California Vegetation (Second Edition) community membership rules, there must be greater than or equal to 1 percent absolute cover of creosote bush and white bursage in the shrub canopy, with both species exceeding 2 times the cover of other shrub species. Creosote bush and white bursage need to be co-dominant in the shrub canopy, but other desert shrub species can be present. Emergent trees or tall shrubs may be present at low cover, including ocotillo (*Fouquieria splendens*) or Joshua tree. Shrubs are typically less than 3 meters in height with a canopy that is open to intermittent and two-tiered, with an herbaceous layer that is absent to intermittent with seasonal annuals (Sawyer et al. 2009).

Within the Survey Area, Creosote Bush – White Bursage Scrub vegetation was within the sheet flow and flood plains associated with Drainage 2, Drainage 3a, Drainage 3b, and Drainage 4 (Appendix A, Photo 35). Native plant species found within the Survey Area typical of this vegetation community included: creosote bush and white bursage co-dominant within the shrub layer with approximately 5 percent cover each, fourwing saltbush occurring commonly, and multiple species occurring uncommonly within the herbaceous layer, including desert plantain (*Plantago ovata* var. *insularis*) and Salton milk vetch. Total acreage is presented in Table 3.

5.5.5 Desert Pavement

Rigid spineflower - and hairy desert sunflower, Desert Pavement Sparsely Vegetated Alliance (referred to as Desert Pavement) is found within broad alluvial fans and lower slopes in the desert. The ground surface is sandy and gravelly mixed alluvium, with various rocks and gravel along with interstitial fine sediment (CNPS 2023b). Desert Pavement exhibits spatial heterogeneity with distinct surface mosaics which have textural differences in surface rock size and percent soil cover -- varying from greater than 65 percent to less than 20 percent cover of rock clasts on the ground surface (Wood et al. 2002).

Annual plant cover may vary depending on the year, while desert scrub species occur at very low cover if present. However, small islands of woody perennials may exist, especially where pavements are intertwined with more densely vegetated, wash rivulets (CNPS 2023b). According to the Manual of California Vegetation community membership rules, rigid spineflower (*Chorizanthe rigida*) and/or hairy desert sunflower are characteristically present in the herbaceous layer with many other potential herbaceous species. The herb layer is sparse to intermittent, the non-vascular (cryptogamic crust) layer is sparse to intermittent, and the shrub layer is sparse (CNPS 2023b).

Within the Survey Area, Desert Pavement vegetation was present in the southeastern portion of the site between Drainage 3b and Drainage 4 (Appendix A, Photo 36). It consisted mainly of a rock and gravel mosaic with infrequently occurring herbaceous vegetation concentrated within a series of small erosional areas throughout the southeastern portion of the Survey Area. Native plant species found within the Survey Area within this vegetation community included: hairy desert sunflower, desert plantain, and salt grass occurring uncommonly, and fourwing saltbush occurring infrequently. Total acreage is presented in Table 3.

5.5.6 Tamarisk Thickets

Tamarisk Thickets are found along arroyo margins, lake margins, ditches, washes, rivers, and other watercourses (Sawyer et al. 2009). Tamarisk species are long-lived shrubs or trees with extensive and deep root systems. They consume large quantities of water, are highly tolerant of alkaline and saline habitats, and can concentrate salts in their leaves (Sawyer et al. 2009). According to the Manual of California Vegetation (Second Edition) community membership rules, tamarisk is dominant in the shrub canopy. Emergent trees may be present at low cover, including willow species (*Salix* spp.). Shrubs are typically less than 8 meters in height with a canopy that is continuous or open. The herbaceous layer is sparse (Sawyer et al. 2009).

Areas with Tamarisk Thickets within the Survey Area were concentrated within the wetter areas of Drainage 1a, Drainage 2a, Drainage 2b and the low and depressional areas where water collects in the northern portion of the Survey Area (Appendix A, Photo 37). Native plant species found within the Survey Area typical of this vegetation community included Anderson's boxthorn, and fourwing saltbush. Non-native species in addition to tamarisk along the margins of the wetter areas included scattered little seed canarygrass (*Phalaris minor*), common sow thistle (*Sonchus oleraceus*), Sahara mustard (*Brassica tournefortii*), and goosefoot species (*Chenopodium* sp.) within the herbaceous layer. Total acreage is presented in Table 3.

5.5.7 Mesquite Thickets

Mesquite Thickets are found along the fringes of playa lakes, river terraces, stream banks, springs, gullies, floodplains, rarely flooded margins of arroyos and washes, and sand dunes. Soils are slightly to moderately saline, with a wide range of soil textures. Stands appear primarily as woodlands, though shrubland stands occur away from rivers (Sawyer et al. 2009). According to the Manual of California Vegetation (Second Edition) community membership rules, honey mesquite and/or screw bean mesquite (*Prosopis pubescens*) is dominant or co-dominant in the small tree canopy with Fremont's cottonwood (*Populus fremontii*) or willow species. Shrubs may include iodine bush (*Allenrolfea occidentalis*), white bursage, Fourwing saltbush, mule fat and coyote brush species (*Baccharis* spp.), sweetbush (*Bebbia juncea*), arrow weed (*Pluchea sericea*), and/or bush seepweed (*Suaeda moquinii*). Trees are fewer than 10 meters in height with a canopy that is open to continuous. The shrub and herbaceous layers are open to intermittent (Sawyer et al. 2009).

Small areas with Mesquite Thicket vegetation were scattered throughout the southern portion of the Survey Area between Drainage 3a and Drainage 4. Native plant species found within the Survey Area typical of this vegetation community included approximately 50 to 75 percent cover of honey mesquite and fourwing saltbush as a commonly occurring species. Total acreage is presented in Table 3.

5.5.8 Anderson's Boxthorn Scrub

Anderson's Boxthorn Scrub is found along moderate to steep concave rocky highlands and rocky intermittently flooded washes. Soils are loams (Sawyer et al. 2009). Plants can grow in poorly-drained soils with high alkalinity and/or salinity, and on highly calcareous soils with Desert Pavement and caliche layers (Tesky 1992). According to the Manual of California Vegetation (Second Edition) community membership rules, Anderson's boxthorn is dominant or co-dominant in the shrub canopy with other desert shrub species also present. Anderson's boxthorn must have greater than 50 percent relative cover in the shrub canopy. Shrubs are typically less than 3 meters in height and the canopy is open. The herbaceous layer is sparse or grassy (Sawyer et al. 2009).

Anderson's Boxthorn Scrub vegetation was present in the southern portion of the Survey Area, surrounded by Creosote Bush Scrub vegetation, and in the northern area within Feature 2b (Appendix A, Photo 38). Native plant species found within the Survey Area typical of this vegetation community included approximately 25 to 50 percent cover of Anderson's boxthorn with white bursage and hairy desert sunflower also being present. Non-native species included common sow thistle, goosefoot, and little seed canary grass. Total acreage is presented in Table 3.

5.5.9 Bare/Disturbed

Bare/Disturbed areas are generally devoid of vegetation but do not contain any form of Desert Pavement or former infrastructure. This land type is typically associated with areas that have been previously cleared by earth-moving machinery, are dirt access roads, contain evidence of OHV use and other anthropogenic activities, and/or consist of naturally occurring areas devoid of vegetation. Pioneering herbaceous species may be present in disturbed areas that experience runoff from the surrounding hard-packed soils.

Bare/Disturbed areas within the Survey Area were primarily in the northern areas with extensive OHV use and around the airport runway (Appendix A, Photo 39). Within the Survey Area, pioneering herbaceous vegetation occurred infrequently and consisted primarily of non-native Sahara mustard, common sow thistle, and goosefoot, with additional native annual species scattered infrequently as well Total acreage is presented in Table 3.

5.5.10 Man-Made Berm

Multiple man-made earthen berms are present in the Survey Area. The first berm is located on the northwest corner of the site directing flow north away from the airport. This berm is associated with Drainage 1a. The second berm runs along the western edge of the northern portion of the Survey Area and then to the northeast, with an associated man-made ditch occurring at the toe of the western and northern sides of the man-made berm. This land type was associated with Drainage 2a and Drainage 2b. It presumably acts to direct water flow away from the airport and residences to the east of the Survey Area. The third berm is associated with Drainage 3a and appears to direct water flow east and away from the airport. The last berm is in the southwest corner of the Survey Area. This berm is associated with Drainage 4 and directs flow southeast.

Non-native herbaceous species associated with this land type within the Survey Area include Saharan mustard, common sow thistle, and goosefoot concentrated within the wetter areas beside the man-made berm. Total acreage is presented in Table 3.

5.5.11 Developed

Developed areas are those where various forms of pavement or man-made earthen structures alter the soil surface. This land type is recorded as separate from bare/disturbed ground due its use and altered erosional and hydric properties. Due to the lack of permeability or intentionally restrictive design, these areas channel water run-off and can result in unique erosional management considerations.

Developed areas were present within the Survey Area included a building associated with the airport, the runway, and surrounding access roads and infrastructure. Total acreage is presented in Table 3.

Table 3 below summarizes the vegetation communities and other areas within the Survey Area and the acreage of each land type.

Table 3: Vegetation Communities within the Survey Area

Land Type (Vegetation Community/Other Area)	Survey Area (Acres)
Vegetation Communities	
Fourwing Saltbush Scrub	45.32
Disturbed Fourwing Saltbush Scrub	15.22
Creosote Bush Scrub	102.50
Creosote Bush – White Bursage Scrub	8.85
Desert Pavement	23.42
Tamarisk Thickets	1.57
Mesquite Thickets	0.14
Anderson's Boxthorn Scrub	0.90
Total Vegetation Communities	***197.92***
Other Areas	
Bare/Disturbed	82.61
Man-Made Berm	1.98
Developed	17.57
Total Other Areas	***102.16***
Total	**300.07**

5.6 SPECIAL STATUS SPECIES

Several factors are taken into consideration when determining the significance of biological resources (wildlife, plants, habitats, etc.). The factors include the listing status of a species (federal, state) which identifies the weighted legal protection afforded a species, whether critical habitat for a species is present, the regional scarcity of a species, and other legal protections in place for species not formally listed but considered unique or rare, such as those species afforded protection under CEQA or considered species of concern by the CDFW. Plant species in California are also ranked by the CNPS according to a hierarchy of rarity or threat of extinction. This combined evaluation of factors determines the potential significance of impacts to a species/population.

In addition, Table 4 provides the criteria used to determine the likelihood of special status species to potentially occur within the Survey Area and proposed Project site.

The following information is a list of abbreviations used to help determine the significance of biological special status resources associated with species occurrence/ranking potentially occurring within the Survey Area.

Federal

FE	Federally listed; Endangered
FT	Federally listed; Threatened
FC	Federal Candidate for listing

State

ST	State listed; Threatened
SE	State listed; Endangered
RARE	State-listed; Rare (Listed "Rare" animals have been redesignated as Threatened, but Rare plants have retained the Rare designation.)
SSC	State Species of Special Concern
WL	CDFW Watch List

California Rare Plant Rank (CRPR)

1A	Plants presumed extinct in California.
1B	Plants rare and endangered in California and throughout their range.
2	Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3	Plants about which we need more information; a review list.
4	Plants of limited distribution; a watch list.

CRPR Extensions

0.1	Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2	Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3	Not very endangered in California (less than 20 percent of occurrences threatened).

Table 4: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)

PFO	Criteria
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Survey Area.
Low:	Historical records for this species do not exist within the immediate vicinity (approximately 5 miles) of the Survey Area, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate:	Either a historical record exists of the species within the immediate vicinity of the Survey Area (approximately 5 miles) and marginal habitat exists within the Survey Area, or the habitat requirements or environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
High:	Both a historical record exists of the species within the Survey Area or its immediate vicinity (approximately 5 miles), and the habitat requirements and environmental conditions associated with the species occur within the Survey Area.
Present:	Species was detected within the Survey Area at the time of the survey.

5.6.1 Special Status Plants

Current database searches (CDFW 2023; CNPS 2023a) resulted in a list of 15 special status plant species documented to occur within 5 miles of the Survey Area (CNDDB and USFWS data; Figure 2) and within the quadrangles containing and surrounding the Survey Area. Factors used to determine the potential for occurrence included the quality of habitat, level of anthropogenic influence, elevation, presence of host plants, and soils present. In addition, the location of prior CNDDB records of occurrence were used as additional data, but as the CNDDB is a positive-sighting database, these data were used only in support of the analysis from the previously identified factors. Of the 15 special status plant species evaluated for their potential occurrence in the Survey Area, one species had a High potential to occur, 6 species had a Moderate potential to occur, and one species had a Low potential to occur, and 6 species were considered to be Absent from the site. One special status species, Salton milk vetch, was found within the Survey Area and is considered **Present**. None of the special status plant species with potential to occur are federally or state listed species.

These special status plant species, their current status, and potential for occurrence are summarized below. A complete table of special status plant species potentially occurring in the Survey Area including bloom periods and habitat requirements is included as Appendix D. A list of all plant species observed during the reconnaissance-level plant survey is provided as Appendix C.

The following species is considered **Absent** from the Survey Area because it occurs outside of the elevation range of the Survey Area:

- Harwood's milk vetch (*Astragalus insularis* var. *harwoodii*) – CRPR 2B.2

The following three species are considered **Absent** from the Survey Area, as they were not observed when the plants would have been in bloom and/or conspicuous within the very minimally vegetated Survey Area:

- Parish's desert-thorn (*Lycium parishii*) – CRPR 2B.3
- Orocopia sage (*Salvia greatae*) – CRPR 1B.3
- little-leaf elephant tree (*Bursera microphylla*) – CRPR 2B.3

The following species is considered **Absent** from the Survey Area because the species is restricted to habitats or environmental conditions that do not occur within the Survey Area.

- Harwood's eriastrum (*Eriastrum harwoodii*) – CRPR 1B.2

The following species is considered **Absent** from the Survey Area because although historical records exist for the species within the immediate vicinity of the Survey Area (approximately 5 miles), no new observations have been recorded in the past 40 years. In addition, even though marginal habitat (a single specimen of dye plant (*Psorothamnus emoryi*), one of the species' parasitic host plants (Baldwin et al. 2012) exists within the Survey Area, the survey was conducted during the species bloom period and was not observed on the single host plant individual within the Survey Area.

- Thurber's pilostyles (*Pilostyles thurberi*) – CRPR 4.3

The following one species is considered to have a **Low** potential for occurrence within the Survey Area given the disturbed nature of the site and because the recorded historical observation is limited to washes and the edge of the Santa Rosa Mountains, the likelihood of this species being present on site is low.

Peirson's pincushion (*Chaenactis carphoclinia* var. *peirsonii*) – CRPR 1B.3
Peirson's pincushion is a CRPR 1B.3 species. It is an annual herb in the Asteraceae family that blooms March through April. This species occurs in sandy Sonoran Desert Scrub at elevations of 10 to 1,640 feet amsl. The known range includes Imperial County (CNPS 2023a). Known only from the eastern Santa Rosa Mountains, where it is only known from few collections. This species is threatened by vehicles. The survey was conducted outside the flowering period of this species; however, appropriate sandy Sonoran Desert Scrub habitat occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records indicate observations within 5 miles of the Survey Area in the Coral Wash, which is 2.5 air miles southwest of Highway 86 and 2.0 air miles north of Highway S-22 (CDFW 2023). Therefore, there is a **Low** potential for this species to occur within the Survey Area.

The following six species are considered to have a **Moderate** potential for occurrence within the Survey Area because the habitat requirements or environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.

gravel milk vetch (*Astragalus sabulonum*) – CRPR 2B.2
Gravel milk vetch is a CRPR 2B.2 species. It is an annual/perennial herb in the Fabaceae family that blooms February through June. This species occurs in desert dunes, Mojavean Desert Scrub, and Sonoran Desert Scrub with microhabitats that are flats, sometimes gravelly, roadsides, usually sandy, and/or washes at elevations from -195 to 3,050 feet amsl. The known range includes: Imperial, Inyo, Riverside, and San Diego counties (CNPS 2023a). This species is threatened by solar energy development and possibly threatened by vehicles, recreational activities, and non-native plants. The survey was conducted outside the flowering period of this species; however, appropriate Sonoran Desert Scrub habitat with sandy soils occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do

not indicate any observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey Area.

Abrams' spurge (*Euphorbia abramsiana*) – CRPR 2B.2
Abrams' spurge is a CRPR 2B.2 species. It is a prostrate annual herb in the Euphorbiaceae family that blooms September through November, sometimes blooming as early as August. This species occurs in sandy flats of Mojavean Desert Scrub and Sonoran Desert Scrub at elevations from -15 and 4,300 feet amsl. The known range includes: Imperial, Riverside, San Bernardino, and San Diego counties (CNPS 2023a). This species is threatened by vehicles, solar energy development, and non-native plants. The survey was conducted outside the flowering period of this species; however, appropriate Sonoran Desert Scrub habitat with sandy soils occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do not indicate any observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey site.

ribbed cryptantha (*Johnstonella costata*) – CRPR 4.3
Ribbed cryptantha is a CRPR 4.3 species. It is an annual herb in the Boraginaceae family that blooms February through May. This species occurs in sandy desert dunes, Mojavean Desert Scrub and Sonoran Desert Scrub at elevations from -195 and 1,640 feet amsl. The known range includes: Imperial, Inyo, Riverside, San Bernardino, and San Diego counties (CNPS 2023a). This species is threatened by development, vehicles, and non-native plants. The survey was conducted outside the flowering period of this species; however, appropriate Sonoran Desert Scrub habitat with sandy soils occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do not indicate any observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey Area. Because of its CRPR 4.3 ranking, a focused plant survey is not required for this species.

brown turbans (*Malperia tenuis*) – CRPR 2B.3
Brown turbans is a CRPR 2B.3 species. It is an annual herb in the Asteraceae family that blooms March through April and sometimes as early as February. This species occurs in sandy and or gravelly Sonoran Desert Scrub at elevations from 50 and 1,100 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). This species is primarily threatened development and to a lesser extent by foot traffic/trampling, mining, non-native plant impacts, OHV activity, recreational use, and vandalism/dumping/litter. The survey was conducted outside the flowering period of this species; however, appropriate Sonoran Desert Scrub habitat with sandy soils occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do not indicate any observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey Area.

hairy stickleaf (*Mentzelia hirsutissima*) – CRPR 2B.3
Hairy stickleaf is a CRPR 2B.3 species. It is an annual herb in the Loasaceae family that blooms March through May. This species occurs in rocky Sonoran Desert Scrub at elevations up to 2,295 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). This species is threatened OHV activity, foot traffic/trampling, non-native plant impacts, grazing and mining. The survey was conducted outside the flowering period of this species; however, appropriate rocky Sonoran Desert Scrub habitat occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do not indicate any

observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey Area.

sand food (*Pholisma sonorae*) – CRPR 1B.2

Sand food is a CRPR 1B.2 species. It is a perennial parasitic herb in the Lennoaceae family that blooms April through June and sometimes as early as March. This species occurs in sandy Sonoran Desert Scrub and desert dunes at elevations up to 655 feet amsl. Sand food's parasitic host plants include *Eriogonum* spp., *Tiquilia* spp., *Ambrosia* spp., and *Pluchea* spp. The host plant, bur sage (*Ambrosia dumosa*), was present in the Survey Area. The known range includes Imperial County (CNPS 2023a). This species is threatened by vehicles, military activities, agriculture, habitat loss, and non-native plants. The survey was conducted outside the flowering period of this species; however, appropriate sandy Sonoran Desert Scrub habitat occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Historical records do not indicate any observations within 5 miles of the Survey Area. Therefore, there is a **Moderate** potential for this species to occur within the Survey Area.

The following one species is considered to have a **High** potential for occurrence within the Survey Area because the habitat requirements associated with the species occur within the Survey Area and historical records exist within 5 miles of the Survey Area – even though the historical record for this species is outside the species' typical elevation range.

Orcutt's woody-aster (*Xylorhiza orcuttii*) – CRPR 1B.2

Orcutt's woody-aster is a CRPR 1.B2 species. It is an annual herb in the Asteraceae family that blooms March through April. This species occurs in Sonoran Desert Scrub at elevations up to 1,200 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). This species is threatened by vehicle traffic. The survey was conducted outside the flowering period of this species; however, appropriate Sonoran Desert Scrub habitat occurs within the Survey Area within Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, and Fourwing Saltbush Scrub habitats. Although this species typically occurs at elevations up to 1,200 feet asml, a population was documented 1.41 miles away at 50 feet bmsl, which is considered close enough range to the Survey Area's highest elevation of 75 feet bmsl to warrant a **High** potential for occurrence.

The following species was **Present** within the Survey Area. This species has a limited range and is on the CNPS watch list, but is considered not very threatened (CRPR 4.3) in which less than 20 percent of occurrences are threatened (CNPS 2023a).

Salton milk vetch (*Astragalus crotalariae*) – CRPR 4.3

Salton milk vetch is a CRPR 4.3 species. It is a perennial herb in the Fabaceae family that blooms January through April. This species occurs in gravelly or sandy Sonoran Desert Scrub at elevations from -197 and 820 feet amsl. The known range includes: Imperial, Riverside, and San Diego County (CNPS 2023a). This species was found throughout Drainage System 4 as well as within the disturbed area north of the airport runway. Within the Survey Area, multiple individuals of this species were found within the Creosote Bush – White Bursage Scrub habitat in Drainage 4, as well as a single individual found with disturbed habitat north of the runway. Because of its CRPR 4.3 ranking, a focused plant survey is not required for this species.

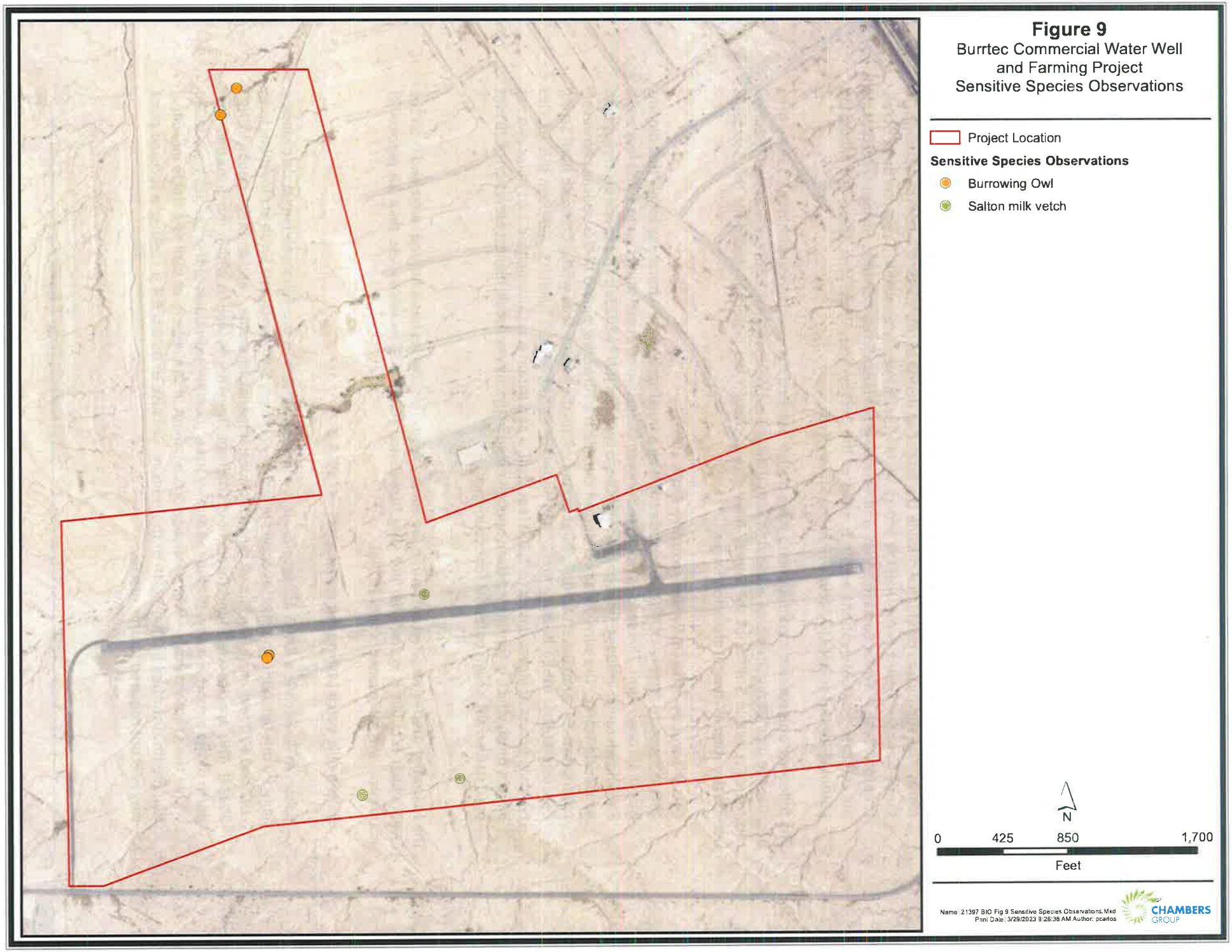
Figure 9
Burrtec Commercial Water Well
and Farming Project
Sensitive Species Observations
Project Location
Sensitive Species Observations
Burrowing Owl
Salton milk vetch
N
0
425
850
1,700
Feet
Name: 21397 BIO Fig 9 Sensitive Species Observations.Mxd
Print Date: 3/29/2023 9:26:36 AM Author: pcarlos
CHAMBERS GROUP

5.6.2 Special Status Wildlife

A current database search (CDFW 2023; USFWS 2023) resulted in a list of 17 federally and/or state listed endangered or threatened, SSC, or otherwise special status wildlife species documented to occur within the quadrangles containing and surrounding the Survey Area (Figure 2). After a literature review and a reconnaissance-level survey, it was determined that 13 special status wildlife species are considered Absent, two species are considered **Low** potential, one species has a **High** potential to occur, and one species was Present within the Survey Area.

These special status wildlife species, their current status, and potential for occurrence are summarized below. Factors used to determine potential for occurrence included the quality of habitat, the location of prior CNDDB records of occurrence in relation to the Survey Area, and connectivity of the Survey Area with special status species habitat. A complete table of special status wildlife species and their potential to occur in the Survey Area, including habitat requirements, is included as Appendix E. A list of all wildlife species observed or detected during all survey efforts is provided as Appendix F.

The following 13 special status wildlife species are considered Absent from the Survey Area due to lack of suitable habitat present, because the species falls outside the elevation range, no suitable habitat is present, or no evidence of this species was observed during the survey efforts on the Survey Area.

- barefoot banded gecko (*Coleonyx switaki*) – **ST**
- California black rail (*Laterallus jamaicensis coturniculus*) – **ST**
- desert pupfish (*Cyprinodon macularius*) – **FE**, **SE**
- gull-billed tern (*Gelochelidon nilotica*) – SSC
- loggerhead shrike (*Lanius ludovicianus*) – SSC
- lowland leopard frog (*Lithobates yavapaiensis*) – SSC
- mountain plover (*Charadrius montanus*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) – SSC
- pocketed free-tailed bat (*Nyctinomops femorosaccus*) – SSC
- sandstone night lizard (*Xantusia gracilis*) – SSC
- western mastiff bat (*Eumops perotis californicus*) – SSC
- western snowy plover (*Charadrius nivosus nivosus*) – **FT**, SSC

The following two special status wildlife species have a **Low** potential for occurrence in the Survey Area due to low quality and disturbed suitable habitat.

- Colorado desert fringe-toad lizard (*Uma notata*) – SSC
- Le Conte's thrasher (*Toxostoma lecontei*) – SSC

One special status wildlife species has a **High** potential for occurrence in the Survey Area due to historical records existing within the immediate vicinity of the Survey Area and habitat requirements plus environmental conditions associated with the species occur within the Survey Area.

flat-tailed horned lizard (*Phrynosoma mcallii*) – SSC
The flat-tailed horned lizard is a California SSC. Its geographical range is throughout most of the Colorado desert, from the Coachella Valley south through the Imperial Valley and west into the Anza-Borrego desert (CalHerp 2023). Flat-tailed horned lizards are adapted to hot dry environments and can be found specifically in the sandy desert hardpan or gravel flats with

scattered sparse vegetation. Most adults hibernate in the winter and usually emerge in April, but juveniles may remain active all year round. Prey sources for this species include harvester ants and occasionally other small invertebrates. Threats to the flat-tailed horned lizard include human disturbances caused by agricultural, urban, and geothermal development as well as mortality from off-road vehicle use. This species has been recently recorded within less than a mile of the Survey Area, directly adjacent to the site. In addition, high quality habitat for this species occurs throughout the Survey Area; therefore, the flat-tailed horned lizard has a high potential to occur within the site.

One special status wildlife species was detected during survey efforts and is therefore considered Present in the Survey Area.

burrowing owl – SSC

The BUOW is a California SSC. It is broadly distributed across the western United States, with populations in Florida and Central and South America. The BUOW breeds in open plains from western Canada and the western United States, Mexico through Central America and into South America to Argentina (Klute 2003). This species inhabits dry, open, native or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation (Ehrlich 1988). It may occupy golf courses, cemeteries, road rights-of way, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows (TLMA 2006). BOOWs typically use burrows made by mammals such as California ground squirrels (*Spermophilus beecheyi*), foxes, or badgers (Trulio 1997). When burrows are scarce, the BUOW may use man-made structures such as openings beneath cement or asphalt pavement, pipes, culverts, and nest boxes (TLMA 2006). BUOWs often are found within, under, or in close proximity to man-made structures. Prey sources for this species include small rodents; arthropods such as spiders, crickets, centipedes, and grasshoppers; smaller birds; amphibians; reptiles; and carrion. Threats to the BUOW include loss of nesting burrows, habitat loss, and mortality from motor vehicles. Two adult individuals were observed near separate burrows with owl sign (i.e., whitewash, pellets, evidence of bird predation) within the Survey Area during the reconnaissance survey. One active burrow was observed just south of the airport landing strip along the man-made berm and one individual flushed from the burrow during the survey. Multiple burrows in this area had sign present including, feathers from bird predation, whitewash, and pellets. The second individual was observed flying to a burrow just outside the western boundary in the northwest corner of the Survey Area inside of an area a large pile of rocks. This burrow also had sign present including whitewash and pellets. Locations of all BUOW burrows are included in Figure 9.

5.7 GENERAL PLANTS

A total of 26 plant species were observed during the reconnaissance-level survey. Plant species observed during the survey efforts were representative of the existing site conditions. Scattered Salton milk vetch (CRPR 4.3) was observed within Drainage System 4 as well as in the disturbed area north of the airport runway. No other special status plant species or special status vegetation communities were observed during the survey efforts. A complete list of plants observed is provided in Appendix C.

5.8 GENERAL WILDLIFE

A total of seven wildlife species were observed or detected during the reconnaissance-level survey. Wildlife species observed or detected during the survey efforts were characteristic of the existing site conditions. Below is a summary of the general wildlife observed on site. A complete list of wildlife observed is provided in Appendix F.

Birds observed or detected on site included American kestrel (*Falco sparverius*), BUOW, common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), horned lark (*Eremophila alpestris*), Say's phoebe (*Sayornis saya*), and western bluebird (*Sialia mexicana*).

5.9 OTHER UNIQUE FEATURES / RESOURCES

5.9.1 Critical Habitat

Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated Critical Habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Designated Critical Habitat delineates all suitable habitat, occupied or not, that is essential to the survival and recovery of the species. According to the USFWS Critical Habitat WebGIS map, the Survey Area does not fall within any designated Critical Habitat (USFWS 2023).

5.9.2 Wildlife Movement Corridors

Wildlife corridors are defined as areas that connect suitable habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features, such as canyons, drainages, ridgelines, or areas with dense vegetation cover can provide corridors for wildlife travel. Wildlife corridors are important to mobile species because they provide access to individuals to find shelter, mates, food, and water; allow the dispersal of individuals away from high population density areas; and allow immigration and emigration of individuals to other populations, providing for gene flow between populations. Three large washes present on site (Drainages 1, 2 and 4) and the smaller wash (Drainage 3) are wildlife corridors providing a migration pathway for small to large mammal species (e.g., black-tailed jackrabbits, mule deer, and coyotes) from the surrounding areas including the mountain ranges to the west to water sources such as the Salton Sea. However, Project activities and access roads will be designed to avoid the drainage features within the site. They will not be impacted and will be left in place to allow surface flow and migration of wildlife through the site. Therefore, no impacts to wildlife migration corridors are anticipated.

SECTION 6.0 – PROJECT IMPACTS AND RECOMMENDED MITIGATION

The proposed Project will be in compliance with federal, state, and county ordinances protecting special status resources. The following sections provide a summary of the biological surveys, potential impacts based on current design, and recommended protection measures to avoid and minimize potential negative impacts to special status resources.

6.1 JURISDICTIONAL WATERS

A total of four drainage features occurs within and adjacent to the Survey Area. Approximately 11.27 acres within the Survey Area are assumed to be subject to regulation under Sections 404 and 401 of the CWA, and under Sections 1600-1616 of the CDFW Code.

Although the northern tributary of Surprise Wash (Drainage 1) has been diverted northward along a man-made berm to the Arroyo Salada, surface water from the surrounding area continues to flow within the historic and channelized pathway as Drainage 1a and 1b. The surface water is intercepted by a second man-made berm and is directed as sheet flow outside of the Survey Area, eventually flowing back into the Surprise Wash on the east side of the State Hwy 86 and terminates in the Salton Sea, a TNW. Therefore, the delineated Drainages 1a and 1b are assumed to be subject to regulation by USACE, RWQCB, and CDFW jurisdiction.

Although the southern tributary of Surprise Wash (Drainage 2) has also been diverted northward along a man-made berm to the Arroyo Salada, surface water from the surrounding area continues to flow within the historic and channelized pathway as Drainage 2a and 2b. Drainage 2a is also intercepted by a second man-made berm and continues within the Survey Area northward and intersects with Drainage 1a and 1b, eventually terminating in the Salton Sea. A small breach in the berm has allowed surface flow to continue through the Survey Area before terminating in a depressional feature just east of the Survey Area. The channelized feature also collects sheet flow from the surrounding area, and the water supports the Tamarisk Thickets identified in Drainage 2b. Therefore, the delineated Drainages 2a and 2b are assumed to be subject to regulation by USACE, RWQCB, and CDFW jurisdiction.

Although Drainage 3 was not identified as stream by the NWI/NHD dataset, channelization has formed as a result of a man-made berm placed along the southern side of the Salton Sea Airport runway. Surface water collected in Drainage 3 eventually connects to Tule Wash and terminates in the Salton Sea. Therefore, the delineated Drainage 3 is assumed to be subject to regulation by USACE, RWQCB, and CDFW jurisdiction.

Drainage 4 is a mapped NWI blue-line drainage that exhibits channelization and eventually connects to Tule Wash and terminates in the Salton Sea. Therefore, the delineated Drainage 4 is assumed to be subject to regulation by USACE, RWQCB, and CDFW jurisdiction.

To minimize additional impacts to drainages, we recommend the following:

- A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent drainage features.
- Erosion protection and sediment control Best Management Practices (BMP's) would be implemented in compliance with the General Construction General Permit.

6.1.1 Federal Permits

The four drainages delineated within the Survey Area are considered ephemeral and have a significant nexus to a TNW (Salton Sea); therefore, based on the definition of WoUS, these drainages should be considered under USACE jurisdiction. However, the Project will be designed to avoid all the water features that occur within the site and temporary impacts will be avoided through the use of BMP's; therefore, no impacts to WoUS are anticipated to occur as a result of Project activities, and a Section 404 permit should not be required.

The agencies will review and verify the jurisdictional delineation and determine if permit and mitigation requirements are required for the proposed Project.

6.1.2 State Permits

The four drainages exhibited channelization and bank to bank geomorphology; therefore, these drainages should be considered under CDFW jurisdiction. However, the Project will be designed to avoid all the water features that occur within the site and temporary impacts will be avoided through the use of BMP's; therefore, no impacts to drainages under CDFW jurisdiction are anticipated to occur as a result of Project activities. Since the Project plans to avoid all drainages, associated banks and vegetation within the limits of the banks during Project activities, no permanent or temporary impacts are anticipated to occur, and a Streambed Alteration Agreement (SAA) should not be required from CDFW for this Project.

Based on this delineation, the four drainages are considered under RWQCB jurisdiction. However, the Project will be designed to avoid all the water features that occur within the site and temporary impacts will be avoided through the use of BMP's; therefore, no impacts to waters of the state are anticipated to occur as a result of Project activities, and a 401 Certification should not be required.

The agencies will review and verify the jurisdictional delineation and determine if permit and mitigation requirements are required for the proposed Project.

6.2 VEGETATION COMMUNITIES

Eight vegetation communities were observed within the Survey Area: Fourwing Saltbush Scrub, Disturbed Fourwing Saltbush Scrub, Creosote Bush Scrub, Creosote Bush – White Bursage Scrub, Desert Pavement, Tamarisk Thickets, Mesquite Thickets, and Anderson's Boxthorn Scrub. Bare/Disturbed ground, a Man-Made Berm, and Developed areas were also identified within the Survey Area. All vegetation communities outside of jurisdictional features are expected to be permanently impacted.

The total acres of each vegetation community that is expected to be impacted within the Survey Area are found in Table 5.

Table 5: Anticipated and Potential Permanent Impacts to Vegetation Communities

Land Type (Vegetation Community/Other Area)	Anticipated Permanent Impacts Outside of Main Drainages (Acres)
Vegetation Communities	

Fourwing Saltbush Scrub	43.27
Disturbed Fourwing Saltbush Scrub	15.22
Creosote Bush Scrub	101.93
Creosote Bush – White Bursage Scrub	4.18
Desert Pavement	23.23
Tamarisk Thickets	0.43
Mesquite Thickets	0.13
Anderson's Boxthorn Scrub	0.52
Total Vegetation Communities	***188.90***
Other Areas	
Bare/Disturbed	81.67
Man-Made Berm	0.71
Developed	17.57
Total Other Areas	***99.95***
Total	**288.85**

Fourwing Saltbush Scrub within the Survey Area was generally of moderate to high quality within and surrounding the southern portion Drainage System 2a and to a lesser extent in the washes associated with Drainage 1a. Anticipated permanent impacts to Fourwing Saltbush Scrub include 43.27 acres located outside of the mapped Drainages within the Survey Area (Table 5). Areas containing Disturbed Saltbush Scrub were of poor to moderate quality with heavy OHV usage and were located outside of mapped water features. The entire 15.22 acres of this community type occurring within the Survey Area are expected to be permanently impacted.

Creosote Bush Scrub within the Survey Area was generally of moderate to high quality with low plant density overall. Large areas of bare ground separate individual creosote bush shrubs with limited plant species being located within the bare ground matrix of the habitat. Anticipated permanent impacts to this vegetation community include 102.51 acres located outside of the mapped Drainages within the Survey Area (Table 5).

Creosote Bush – White Bursage Scrub habitat areas within the Survey Area were strongly associated within and along the banks of Drainage 3a, Drainage 3b, and Drainage 4, and to a lesser extent in the washes associated with Drainage 1a along the southwestern corner of the Survey Area. Some areas within this community appeared to experience more ephemeral water infiltration and supported a higher level of herbaceous species than surrounding areas, including native species desert plantain and hairy desert sunflower, as well as non-native Sahara mustard, common sow thistle, and goosefoot. Non-native species cover was generally low within Drainage 1a and Drainage 4 where the habitat was of higher quality, with more non-native cover in the areas associated with Drainage 3a, where habitat quality was generally lower. Anticipated permanent impacts to this vegetation community include 4.18 acres located outside of the mapped Drainages within the Survey Area (Table 5).

Desert Pavement habitat areas are associated with locations that appear to experience more ephemeral water infiltration and support a higher level of herbaceous species than surrounding areas. Native species included desert plantain and hairy desert sunflower. Only a small amount of non-native cover was present in this habitat and it is therefore considered moderate to high quality habitat. These non-native species included primarily Sahara mustard and goosefoot, though they occurred infrequently. Anticipated permanent impacts to this vegetation community include 23.23 acres located outside of the mapped Drainages within the Survey Area (Table 5).

Tamarisk Thickets is a non-native community composed primarily of invasive tamarisk species and, aside from being potential nesting habitat for some opportunistic bird species, this community does not contribute positively to the overall health and quality of the environment. Tamarisk competes for water in drainage features and changes the natural chemistry of the soil (salt-saturated) that inhibits the survival of native species. Anticipated permanent impacts to this vegetation community include 0.43 acre located outside of the mapped Drainages within the Survey Area (Table 5).

Mesquite Thicket habitat areas occurred very infrequently and only in isolated pockets within the Survey Area. Though these areas were isolated, they contained little non-native cover and are therefore considered of moderate quality. Anticipated permanent impacts to this vegetation community include 0.13 acre located outside of the mapped Drainages within the Survey Area (Table 5).

Anderson's Boxthorn Scrub habitat within the Survey Area was found along the banks of Drainage 2b as well as in a small area within the Creosote Bush Scrub matrix found in the southern portion of the Survey Area and was generally moderate quality. Moderate amounts non-native herbaceous cover was found in

these areas, including Sahara mustard, common sow thistle, and little seed canary grass. Anticipated permanent impacts to this vegetation community include 0.52 acre located outside of the mapped Drainages within the Survey Area (Table 5).

Bare/Disturbed habitat was also present in the Survey Area. The soils in Bare/Disturbed areas are typically characterized as heavily compacted or frequently disturbed. Little vegetation is found within this habitat type and is isolated within disturbed areas that collect runoff from the surrounding areas. Within the Survey Area, areas containing vegetation were dominated by non-native and invasive species including Saharan mustard, common sow thistle, and goosefoot. This habitat type is considered low quality. Anticipated permanent impacts to this vegetation community include 81.67 acres located outside of the mapped Drainages within the Survey Area (Table 5).

None of the vegetation communities present within the Survey Area are considered special status vegetation communities, therefore no mitigation is required for impacts.

6.3 SPECIAL STATUS PLANTS

The results of the reconnaissance level survey were negative for the 14 of the 15 rare plant species identified in the literature search as having potential to occur within the Survey Area; however, Salton milk vetch (CRPR 4.3) was found within Drainage 4 and will not be impacted. One individual was found within a disturbed area north of the airport runway. Because it is CRPR 4.3, it is not protected under the CEQA and mitigation for impacts to any individual plants are typically not required.

The reconnaissance-level survey was conducted outside of the blooming period for 7 of the 15 species: gravel milk vetch (typically blooms February through June), Abrams' spurge (typically blooms September through November), Orcutt's woody-aster (typically blooms from March through April), Peirson's pincushion (typically blooms from March through April), brown turbans (typically blooms from March through April), hairy stickleaf (typically blooms from March through May), and sand food (typically blooms from April through June). These species are protected under CEQA and NPPA; therefore, a focused survey to confirm the presence or absence of these species will be required.

6.4 SPECIAL STATUS WILDLIFE

Of the 17 special status wildlife species identified in the literature review as having potential to occur in the Survey Area, it was determined that 13 special status wildlife species are considered Absent, two species are considered to have Low potential, one species has a High potential to occur, and one species was Present within the Survey Area. One species, flat-tailed horned lizard, was not observed in the Survey Area; however, high-quality habitat is present and this species has been observed within less than a mile of the Survey Area. Therefore, this species is considered to have a high potential to occur within the site. In addition, two adult BUOWs with active burrows were observed within the Survey Area. BUOWs are considered Present within the Survey Area.

burrowing owl (Present)

Although a focused BUOW survey was not conducted, two separate BUOWs were observed in two different locations within the Survey Area. One BUOW was located at the northwest corner of the Project boundary and the other was located on the south side of the airport landing strip along the man-made dirt berm. Both owls were seen in areas with burrows which showed owl sign including whitewash and

cough pellets. Other suitable habitat for BUOW exists throughout the Survey Area within Creosote Bush Scrub and Disturbed habitats. Protocol surveys for BUOW should be conducted for the species prior to construction. The report and analysis will present information to CDFW regarding the owls present on and possibly adjacent to the proposed Project site, potential impacts to BUOW, and provide appropriate avoidance, minimization, and mitigation measures to protect this species.

flat-tailed horned lizard (High)

Suitable habitat exists within the Survey Area for the flat-tailed horned lizard specifically within the sandy desert hardpans and the gravel flats that are sparsely vegetated. In addition, the literature review shows that flat-tailed horned lizards have been recorded within less than a mile of the Survey Area. A focused survey for flat-tailed horned lizards should be conducted for BUOW prior to construction. The report and analysis will present information to CDFW regarding any flat-tailed horned lizards present on and possibly adjacent to the proposed Project site, potential impacts to flat-tailed horned lizards, and provide appropriate avoidance, minimization, and mitigation measures to protect this species.

The agencies will make the final determination of avoidance, minimization, and mitigation measures.

Based on the field surveys and report analysis, the following protection measures are recommended to avoid and/or minimize potential impacts to these special status wildlife species:

- Prior to the start of Project activities, an environmental education program will be provided for all project personnel. The education program will include the following: (1) the potential presence of covered species and their habitats, (2) the requirements and boundaries of the project, (3) the importance of complying with avoidance and minimization measures, (4) environmentally responsible construction practices, (5) identification of special status resource areas in the field, and (6) problem reporting and resolution methods.

- Protocol surveys for BUOW in compliance with the CDFW Staff Report on BUOW Mitigation (CDFG, 2012) in suitable habitat for this species should be conducted prior to construction activities. According to the protocol, an additional preconstruction or avoidance/take survey will be conducted for the BUOW within 30 days of construction in all suitable habitat within the proposed Project.

- Protocol surveys for flat-tailed horned lizard should be conducted prior to construction activities. Although no CDFW protocol for flat-tailed horned lizard currently exists, according to the Flat-tailed Horned Lizard Rangewide Management Strategy (May 1997), flat-tailed horned lizards are most active between March and October; therefore, surveys should be conducted during this period when flat-tailed horned lizards are most active.

- If any ground disturbing activities are planned during the BUOW nesting season (approximately February 1 through August 31), avoidance measures shall include a no construction buffer zone of a minimum distance of 250 feet, consistent with the Staff Report on BUOW Mitigation (CDFG, 2012). Compliance shall be maintained with CDFW BUOW mitigation guidelines as detailed in the Staff Report on BUOW Mitigation (CDFG, 2012) or more recent updates, if available.

- If vegetation disturbance or other Project activities will occur during the bird breeding season (February 15-August 31), a qualified biologist shall conduct a preconstruction nesting survey to

ensure that no active nests are present within or adjacent to the Survey Area. If an active nest is observed that may be impacted by Project-related activities, avoidance measures shall be implemented to avoid impacting the nest. Avoidance measures include delaying construction within the immediate vicinity of the active nest until the young have fledged or naturally failed, or instituting a buffer around the nest that prohibits construction activities to occur, but allows construction to continue outside the buffer. The appropriate avoidance buffer is to be determined by the qualified biologist based on vegetative cover, topography, stage of nest or young development, and species type.

- A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to drainage features. The biological monitor will be present throughout Project activities to conduct daily sweeps for flat-tailed horned lizard and inspect compliance with project protection measures. If a flat-tailed horned lizard or other special status species is found, the species shall be relocated out of harm's way whenever feasible. Any mortalities shall be reported to the agencies and County of Imperial. A final monitoring report will be submitted to CDFW and County of Imperial. The annual report shall include a summary of pre-construction surveys, biological monitoring, avoidance measures implemented, and whether the avoidance measures were effective.

- As the reconnaissance survey was conducted outside the normal blooming period of 7 special status plant species identified in the literature search, a focused plant survey should be conducted if work activities encroach within the species' potential habitats (e.g., Creosote Bush Scrub, Fourwing Saltbush Scrub, or Creosote Bush - White Bursage Scrub).

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APPENDIX A – SITE PHOTOGRAPHS

ATTACHMENT A - SITE PHOTOGRAPHS

Photo 1

Overview of Drainage 2 which enters from the northwest corner of the airport runway. It is a defined channel that has man-made berms that attempt to direct flow north. Drainage 2 exits at the very northern portion of the Project Area flowing north. This drainage is part of Surprise Wash. Photo facing north.

Photo 2

Southeast bank of Drainage 2 showing the man-made berm to the right that helps direct flow north. Photo also shows the defined channel, soil change, and an undercut bank. Photo facing northeast.

Photo 3

Vegetation inside of the channel bed of Drainage 2. Some vegetation has exposed roots and wracking showing flow moving north and are evidence of the OHWM. OHV tracks were also found throughout the drainage. Photo facing north.

Photo 4

Overview of Drainage 1a which is located on the northern most portion of the Project Area. It shows connectivity to Drainage 1b and is part of Surprise Wash. It is a defined channel with a clear bank to bank and contains non-native grass, fourwing saltbush, and tamarisk. Photo facing east.

Photo 5

Drainage 1a channel bed has matted down vegetation with trash and wracking showing flow goes east within the OHWM. Photo facing northeast.

Photo 6

Drainage 2a that cuts through the northern portion of the Survey Area. This man-made berm directs flow northeast connecting it to the northern tributary of Surprise Wash. This drainage has a defined bank to bank and vegetation is dominated by non-native grass and forbs. Photo facing northwest.

Photo 7

Overview of Drainage 2b which is located north of the airport runway. This drainage is part of Surprise Wash. It is a wide defined channel, and the channel bed is dominated by non-native grass and forbs. The banks are dominated by tamarisk and Anderson's boxthorn. Photo facing southwest.

Photo 8

Drainage 2b receives most of its flow from Drainage 2a where waters have eroded through the man-made berm that direct water north. There is a defined bank to bank, change in soil, and vegetation change (evidence of the OHWM). Photo facing northwest.

Photo 9

Vegetation inside the channel bed of Drainage 2b contains non-native grasses as well as other forbs. Photo facing south.

Photo 10

Soil pit sample taken in a possible wetland area of Drainage 2b. No hydric soils were found in the sample. Photo facing north.

Photo 11

Vegetation surrounding the soil pit sample taken in Drainage 2b. Tamarisk, Anderson's boxthorn, and non-native grass dominate the area. Photo facing east.

Photo 12

Overview of Drainage 3a located south of the airport runway. A man-made berm on the south side directs flow east and eventually connects to Tule Wash. It is a defined channel with a bank to bank. Vegetation consists mainly of white bursage, creosote bush, and scattered annuals. Photo facing east.

Photo 13

Northern culvert located on the western edge of the Survey Area. It facilitates road runoff and sheet flow which eventually feeds into Drainage 3a. Photo facing west.

Photo 14

Drainage 3a has a defined bank to bank, soil, and vegetation (evidence of the OHWM). Photo facing west.

Photo 15

Drainage 3b forms from sheet flow and connects to Drainage 3. It has a defined bank to bank and soil substate change. The southern edge of the bank is undercut which is evidence of the OHWM. Photo facing west.

Photo 16

Drainage 4 is located through the southern portion of the Survey Area. The northeastern bank is a man-made berm directing flow southeast towards Tule Wash. It has a defined bank to bank with a clear undercut bank on the northeast side. Vegetation is dominated by white bursage and creosote bush. Photo facing southeast.

Photo 17

Vegetation along the southwest bank of Drainage 4 has exposed roots which is evidence of the OHWM. Photo facing southwest.

Photo 18

Wracking and trash inside of the channel bed of Drainage 4 showing flow going southeast (evidence of the OHWM). Photo facing northeast.

Photo 19

Southern most culvert on the western edge of the Survey Area. It is one of the two culverts that facilitates flow for Drainage 4. Photo facing west.

Photo 20

The second culvert that facilitates flow for Drainage 4. There is a man-made berm that helps facilitate flow east to connect to Tule Wash. Photo facing east.

Photo 21

Smashed culvert near the northeast corner of the airport road. It helps direct road runoff and sheet flow east. It has no connectivity to an ephemeral drainage. Photo facing west.

Photo 22

Sheet flow from the smashed culvert near the northeast corner of the airport road. It is a non-jurisdictional feature with no connectivity to Tule Wash. Photo facing east.

Photo 23

One of two swales located on the northern portion of the Survey Area. Erosional features and sheet flow terminate into the swale. It is a non-jurisdictional feature with no connectivity and no hydric soils were present. Photo facing west.

Photo 24

The second swale where erosional features and sheet flow terminate into the swale. It is a non-jurisdictional feature and no hydric soils were present. Photo facing west.

Photo 25

This is one of multiple OHV tracks that cut through the Survey Area. Tracks were also identified within the drainages, primarily located north of the airport. Photo is facing west.

Photo 26

Burrowing owl burrow 1 in the northern portion of the Survey Area along the western boundary within some rock features. Photo facing northeast.

Photo 27

Satellite burrows located close to burrow 1 with more evidence of whitewash and owl pellets. Photo facing southwest.

Photo 28

Whitewash and owl pellets found outside of the burrow 1 where a burrowing owl was observed flying. Photo facing southwest.

Photo 29

Burrowing owl burrow 2 located on the man-made berm just south of the airport runway. A burrowing owl was flushed from this area. Whitewash, pellets, and feathers were found just outside of the burrow. Photo facing south.

Photo 30

Satellite burrows with burrowing owl sign near burrow 2. They also show signs of whitewash and owl pellets. Photo facing northwest.

Photo 31

Whitewash and multiple pellets found outside of burrow 2. Photo facing south.

Photo 32

Feathers found outside of burrow 2. Possible sign of carnivory from the burrowing owl. Photo facing north.

Photo 33

Example of Fourwing Saltbush Scrub found in the northeastern portion of the Survey Area, north of the airport runway east of the developed areas. Vegetation was concentrated within the sheet flows in this area. Photo facing southwest.

Photo 34

Example of Creosote Bush Scrub found in the southern portions of the Survey Area. This vegetation type dominated the areas south of the airport runway. Photo facing east.

Photo 35

Example of Creosote Bush – White Bursage Scrub found in the southern portion of the survey area within the channels of Drainages 2, 3a, 3b, 4, and along the boundaries of the mapped OHWM. Photo facing east.

Photo 36

Example of Desert Pavement found in the southeastern portion of the Survey Area, between Drainages 3a and 4. Vegetation was concentrated within lower depressional areas. Photo facing west.

Photo 37

Example of a Tamarisk Thicket found in the northern portion of the Survey Area, concentrated within the swale feature. Photo facing southwest.

Photo 38

Example of Anderson's Boxthorn Scrub found in the southern portion of the Survey Area, between Drainages 3b and 4. Photo facing southwest.

Photo 39

Example of Bare/Disturbed and Earthen Berm land type found in the northern portion of the Survey Area. These areas were devoid of vegetation and heavily disturbed by OHV usage. Earthen Berm can be seen in the lower left of the photo. Photo facing northeast.

APPENDIX B – OHWM FORMS

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved -
OMB No. 0710-OHWM
Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs mc-alex esd mbx dd-dod-information-collections@mail mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.241678 N -115.960180 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] climatic data
- [x] aerial photos
- [ ] LiDAR
- [x] satellite imagery
- [ ] topographic maps
- [ ] geologic maps
- [ ] land use maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?
Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.
Drainage 1a flow is diverted from a man-made dirt berm and OHV road.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.
OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [x] *valley bottom:* b
  - [ ] Other: _____
- [x] **Shelving:** b
  - [x] *shelf at top of bank:* b
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* _____
- [x] **Channel bar:** b
  - [x] *shelving (berms) on bar:* b
  - [ ] *unvegetated:*
  - [x] *vegetation transition (go to veg. indicators)* b
  - [x] *sediment transition (go to sed. indicators)* x
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.):*
- [x] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)* b
- [ ] **Secondary channels:**

Sediment indicators

- [ ] **Soil development:**
- [ ] **Changes in character of soil:**
- [x] **Mudcracks:** b
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to pebble
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** x

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs). **Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to:* woody shrubs
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [ ] *graminoids to:*
  - [x] *woody shrubs to:* absent
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [x] **Vegetation matted down and/or bent:** b
- [x] **Exposed roots below intact soil layer:** b

Ancillary indicators

- [x] **Wracking/presence of organic litter:** b
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

Banks are well defined with slope down to the OHWM. Sediment transitions from cobble/pebble at the top of the banks to fine sand within OHWM. Theres a large channel bar located within the wash and can see the OHWM goes above the channel by clear flow path. Channel bar has distinct shelving.

Additional observations or notes

Mudcracks within OHWM.

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
1	Overview
2	Undercut bank, soil change, and man-made berm.
3	Vegetation change within the channel, exposed roots, and wracking.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved - OMB No. 0710-OHWM Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.250920 N -115.958212 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [ ] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Drainage 1b flows west to east through the northwest corner of the Project site.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] Other: _____
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* _____
- [x] **Channel bar:** b
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition (go to veg. indicators)*
  - [x] *sediment transition (go to sed. indicators)* x
  - [ ] *upper limit of deposition on bar:*
- [x] **Instream bedforms and other bedload transport evidence:** b
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc)*
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.):*
- [x] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)* b
- [ ] **Secondary channels:**

Sediment indicators

- [ ] **Soil development:**
- [x] **Changes in character of soil:** b
- [x] **Mudcracks:** b
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to pebble
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:**

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to* absent
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [ ] *graminoids to:*
  - [ ] *woody shrubs to:*
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [ ] **Exposed roots below intact soil layer:**

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

Clear evidence of OHWM by sediment change from fine sand to gravel/pebbles at the top of the banks. Bank has a fairly steep slope down to the OHWM. Mud cracks are present throughout the channel.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
4	Overview, mud cracks, clear B2B, vegetation change within channel.
5	Vegetation change, matted down veg, and wracking.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved -
OMB No. 0710-OHWM
Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

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Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.249579 N -115.957012 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [ ] topographic maps
- [ ] Other:

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Drainage 2a flows south to north along the edge of the boundary following a man-made berm and eventually cuts northeast through the northern portion of the Project site.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [x] *valley bottom:* b
  - [ ] Other:
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:*
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition (go to veg. indicators)*
  - [ ] *sediment transition (go to sed. indicators)*
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.):*
- [ ] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- [ ] **Secondary channels:**

Sediment indicators

- [x] **Soil development:** b
- [x] **Changes in character of soil:** b
- [x] **Mudcracks:** b
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to pebble
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** b

  Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to:* forbs
  - [ ] *moss to:*
  - [x] *forbs to:* absent
  - [ ] *graminoids to:*
  - [ ] *woody shrubs to:*
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [ ] **Exposed roots below intact soil layer:**

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

Area is void of vegetation except a few small forbs in the center of the channel. There is an obvious break in slope at the OHWM. Sediment particle clearly changes from sand at the OHWM to gravel along and on top of the banks. Mud cracks are present within the channel and along the tops of the banks.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
6	Overview, man-made berm, clear B2B, and change in veg within the channel.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved -
OMB No. 0710-OHWM
Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

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Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.245120 N -115.955324W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] climatic data
- [x] aerial photos
- [ ] LiDAR
- [x] satellite imagery
- [ ] topographic maps
- [ ] geologic maps
- [ ] land use maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Drainage 2b flow is diverted from a man-made berm and OHV road. A soil sample was taken for a possible Wetland area but no hydric soils were detected.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [x] *valley bottom:* b
  - [ ] Other: _____
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* _____
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition (go to veg. indicators)*
  - [ ] *sediment transition (go to sed. indicators)*
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - [ ] *bedforms (e.g., poofs, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- [ ] **Secondary channels:**

Sediment indicators

- [x] **Soil development:** b
- [x] **Changes in character of soil:** a
- [x] **Mudcracks:** b
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand *to* pebble
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** x

Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

- [x] *vegetation absent to:* forbs
- [ ] *moss to:*
- [x] *forbs to:* absent
- [ ] *graminoids to:*
- [ ] *woody shrubs to:*
- [ ] *deciduous trees to:*
- [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [ ] **Exposed roots below intact soil layer:**

Ancillary indicators

- [x] **Wracking/presence of organic litter:** x
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

Water appears to pool within area. Vegetation changes from forbs to below and at OHWM to tamarisk and BG above and at bank to indicate OHWM. Wash appears to be regularly driven through. Mud cracks present throughout wash to OHWM level and present above banks as well.

Additional observations or notes

OHWM approximately 52ft wide.

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
7	Overview, defined channel, and vegetation change within the channel.
8	Man-made berm, clear B2B, soil change, and veg change.
9	Vegetation within the channel.
10	Soil sample showing no hydric soils
11	Vegetation around the soil sample.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved -
OMB No. 0710-OHWM
Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

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Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.240968 N -115.949834 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] climatic data
- [x] aerial photos
- [ ] LiDAR
- [x] satellite imagery
- [ ] topographic maps
- [ ] geologic maps
- [ ] land use maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Drainage 3a has a man-made dirt berm that runs parallel to the feature to help facilitate flow away from the runway.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [x] *undercut bank:* b
  - [x] *valley bottom:* b
  - [ ] Other: _____
- [x] **Shelving:** b
  - [x] *shelf at top of bank:* a
  - [ ] *natural levee:*
  - [x] *man-made berms or levees:* a
  - [ ] *other berms:* _____
- [x] **Channel bar:** b
  - [x] *shelving (berms) on bar:* b
  - [ ] *unvegetated:*
  - [x] *vegetation transition (go to veg. indicators)* b
  - [x] *sediment transition (go to sed. indicators)* x
  - [ ] *upper limit of deposition on bar:*
- [x] **Instream bedforms and other bedload transport evidence:** b
  - [x] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)* b
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.):*
- [x] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)* b
- [ ] **Secondary channels:**

Sediment indicators

- [ ] **Soil development:**
- [x] **Changes in character of soil:** x
- [x] **Mudcracks:** b
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to pebble
  - [ ] *upper limit of sand-sized particles*
  - [x] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** x

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to:* graminoids
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [x] *graminoids to:* woody shrubs
  - [x] *woody shrubs to:* absent
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [x] **Vegetation matted down and/or bent:** b
- [x] **Exposed roots below intact soil layer:** b

Ancillary indicators

- [x] **Wracking/presence of organic litter:** b
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet.

Step 5 Describe rationale for location of OHWM

There are clear cuts in the banks on each side of the feature. There is a clear transition in soil deposition from fine sand to pebbles. Scouring and matted down vegetation is located below the OHWM. Vegetation on the banks have exposed roots just below the OHWM. There is an undercut bank on the south side of the feature with distinct shelving at the OHWM. Trash and wracking is present across the channel below the OHWM which is clear evidence of flow path.

Additional observations or notes

OHWM on average is 6.9 feet in width.

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
12	Overview, man-made berm, clear B2B, and veg within the channel.
13	Culvert that produces flow that eventually connects to Drainage 3.
14	Clear B2B, change in soil, and vegetation.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

From Approved -
OMB No. 0710-OHWM
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AGENCY DISCLOSURE NOTICE

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Project ID #: 21397	Site Name: Burntec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.240118 N -115.947651 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] climatic data
- [x] aerial photos
- [ ] LiDAR
- [x] satellite imagery
- [ ] topographic maps
- [ ] geologic maps
- [ ] land use maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?
Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.
Drainage 3b has an undercut bank on the south side with little vegetation located within or surrounding the banks.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM. OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.
OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:**
  - [x] *on the bank:* x
  - [x] *undercut bank:* x
  - [x] *valley bottom:* b
  - [ ] Other: _____
- [x] **Shelving:**
  - [x] *shelf at top of bank* x
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:* a
  - [ ] *other berms:* _____
- [x] **Channel bar:** b
  - [x] *shelving (berms) on bar:* b
  - [x] *unvegetated:* b
  - [x] *vegetation transition (go to veg. indicators)* x
  - [x] *sediment transition (go to sed. indicators)* x
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)* b
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.):*
- [x] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)* b
- [ ] **Secondary channels:**

Sediment indicators

- [ ] **Soil development:**
- [ ] **Changes in character of soil:**
- [x] **Mudcracks:** x
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to pebble
  - [x] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:**
  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs). **Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***
  - [x] *vegetation absent to:* graminoids
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [x] *graminoids to:* woody shrubs
  - [x] *woody shrubs to:* absent
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [x] **Vegetation matted down and/or bent:** b
- [x] **Exposed roots below intact soil layer:** b

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

There are clear cuts in the banks on each side of the feature. There is undercut shelving on the south bank with scouring. Sediment changes from fine sand to pebbles at the OHWM. Vegetation is matted down within the channel and vegetation on the banks have exposed roots below the OHWM. Clear evidence of flow path.

Additional observations or notes

OHWM on average is 5 feet in width.

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not.

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
15	Clear B2B, change in soil, and undercut bank.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R

From Approved -
OMB No. 0710-OHWM
Expires: xx-xx-xxxx

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.pdd-ddd-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: 21397	Site Name: Burrtec Water Well and Farming	Date and Time: 1/13/2023
Location (lat/long): 33.238332 N -115.95612400 W	Investigator(s): Heather Franklin and Austin Burke	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [ ] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources. Were there any recent extreme events (floods or drought)?

Desert landscape surrounding the Salton Sea Airport. Some OHV trails and roads run through the Project site. Waters flow west to east through the site.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Feature 4 has some man-made dirt berms that run west to east to help facilitate waters.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below 'b', at 'x', or just above 'a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:**
  - [x] *on the bank:* a
  - [x] *undercut bank:* x
  - [x] *valley bottom:* b
  - [ ] Other: _____
- [x] **Shelving:**
  - [ ] *shelf at top of bank*
  - [ ] *natural levee*
  - [x] *man-made berms or levees* a
  - [ ] *other berms* _____
- [x] **Channel bar:**
  - [x] *shelving (berms) on bar* b
  - [ ] *unvegetated*
  - [x] *vegetation transition (go to veg. indicators)* x
  - [x] *sediment transition (go to sed. indicators)* b
  - [ ] *upper limit of deposition on bar*
- [x] **Instream bedforms and other bedload transport evidence:**
  - [x] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)* b
  - [ ] *bedforms (e.g., pools, riffles, steps, etc.)*
- [x] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)* b
- [ ] **Secondary channels:**

Sediment indicators

- [x] **Soil development:** b
- [x] **Changes in character of soil:** b
- [x] **Mudcracks:** x
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand *to* pebble
  - [x] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation indicators

- [x] **Change in vegetation type and/or density:**

  Check the appropriate boxes and select the general vegetation change (e.g., graminoids to woody shrubs). ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to* woody shrubs
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [ ] *graminoids to:*
  - [ ] *woody shrubs to:*
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [x] **Exposed roots below intact soil layer:** b

Ancillary indicators

- [x] **Wracking/presence of organic litter:** b
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:

Man-made berms were located on the north side of the feature. There was smoothing on rocks within the channel.

Project ID #: 21397

Step 4 Is additional information needed to support this determination? ☐ Yes ☒ No If yes, describe and attach information to datasheet:

Step 5 Describe rationale for location of OHWM

There are clear cuts in the banks on each side of the feature. There is an undercut shelving on the north bank. Sediment within the channel is fine sand and transitions to pebble/cobble on the channel bar. Mud cracks are along the banks at the OHWM. Wracking of trash is found along the base of the banks and there are exposed roots below the OHWM.

Additional observations or notes

Clear evidence of water path during flow. Vegetation along base of banks and on channel bar are low lying saltbush and mature creosote occurs along the tops of the banks.

OHWM on average is 7.7 feet in width.

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not:

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
16	Clear B2B, undercut bank, and vegetation change within the wash.
17	Exposed roots along the banks.
18	Wracking and trash inside of the channel.
19	Culvert directing flow to drainage 4.
20	Second culvert directing flow to drainage 4.

APPENDIX C – PLANT SPECIES LIST

ATTACHMENT C – PLANT SPECIES OBSERVED OR DETECTED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
ASTERACEAE	**SUNFLOWER FAMILY**
Ambrosia dumosa	white bur-sage
Encelia farinosa	brittlebush
Encelia frutescens	button brittlebush
Geraea canescens	hairy desert sunflower
Isocoma acradenia	alkali goldenbush
Palafoxia arida var. *arida*	Spanish needles
Pectis papposa	chinchweed
*Sonchus oleraceus**	common sow thistle
BORAGINACEAE	**BORAGE FAMILY**
Cryptantha maritima	white-hair cryptantha
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica tournefortii**	Saharan mustard
Lepidium nitidum	shining peppergrass
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Atriplex canescens	four-wing saltbush
Atriplex hymenelytra	desert holly
Atriplex lentiformis	big saltbush
Chenopodium sp.	goosefoot
FABACEAE	**LEGUME FAMILY**
Astragalus crotalariae	Salton milkvetch
Prosopis glandulosa var. *torreyana*	honey mesquite
Psorothamnus emoryi	dye plant
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	red-stemmed filaree
PLANTAGINACEAE	**PLANTAIN FAMILY**
Plantago ovata var. *insularis*	desert plantain
SOLANACEAE	**NIGHTSHADE FAMILY**
Lycium andersonii	Anderson's boxthorn
TAMARICACEAE	**TAMARISK FAMILY**
Tamarix sp.	tamarisk
ZYGOPHYLLACEAE	**CALTROP FAMILY**
Larrea tridentata	creosote bush
ANGIOSPERMS (MONOCOTS)	
POACEAE	**GRASS FAMILY**
Distichlis spicata	saltgrass

Hilaria rigida	big galleta
*Phalaris minor**	little seed canarygrass

*Non-Native Species, +Ornamental, Unlikely to be Invasive

APPENDIX D – SENSITIVE PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

ATTACHMENT D – SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
APODANTHACEAE STEMSUCKER FAMILY			
Thurber's pilostyles *Pilostyles thurberi*	CRPR 4.3	This species occurs in sandy Sonoran desert scrub at elevations up to 1,200 feet amsl. Grows inside the stems of *Psorothamnus* spp., especially *P. emoryi* and flowers on the stems of its host. The known range includes Imperial and San Diego counties (CNPS 2023a). **Bloom Period:** December - April	**Absent: S**pecies is considered Absent from the Survey Area because although historical records exist for the species within the immediate vicinity of the Survey Area (approximately 5 miles), no new observations have been recorded in the past 40 years. In addition, even though marginal habitat (a single specimen of dye plant (*Psorothamnus emoryi*), one of the species' parasitic host plants (Baldwin et al. 2012) exists within the Survey Area, the survey was conducted during the species bloom period and was not observed on the single host plant individual within the Survey Area.
ASTERACEAE SUNFLOWER FAMILY			
Peirson's pincushion *Chaenactis carphoclinia* var. *peirsonii*	CRPR 1B.3	This species occurs in sandy Sonoran desert scrub at elevations of 10 to 1,640 feet amsl. The known range includes Imperial county (CNPS 2023a). Known only from the eastern Santa Rosa Mtns, where known from few collections. **Bloom Period:** March - April	**Low:** Species is considered to have a Low potential for occurrence within the Survey Area given the disturbed nature of the site and because the recorded historical observation is limited to washes and the edge of the Santa Rosa Mountains, the likelihood of this species being present on site is low.

ATTACHMENT D – SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
brown turbans *Malperia tenuis*	CRPR 2B.3	This species occurs in sandy and or gravelly Sonoran desert scrub at elevations from 50 and 1,100 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). **Bloom Period:** March - April (sometimes as early as February)	**Moderate:** Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
Orcutt's woody-aster *Xylorhiza orcuttii*	CRPR 1B.2	This species occurs in Sonoran desert scrub at elevations up to 1,200 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). **Bloom Period:** March - April	**High:** The following one species is considered to have a High potential for occurrence within the Survey Area because the habitat requirements associated with the species occur within the Survey Area and historical records exist within 5 miles of the Survey Area – even though the historical record for this species is outside the species' typical elevation range.
BORAGINACEAE BORAGE FAMILY			
ribbed cryptantha *Johnstonella costata*	CRPR 4.3	This species occurs in sandy desert dunes, Mojavean desert scrub and Sonoran desert scrub at elevations from -195 and 1,640 feet amsl. The known range includes: Imperial, Inyo, Riverside, San Bernardino, and San Diego counties (CNPS 2023a). **Bloom Period:** February - May	**Moderate:** Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
BURSERACEAE TORCHWOOD FAMILY			

ATTACHMENT D – SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
little-leaf elephant tree *Bursera microphylla*	CRPR 2B.3	This species occurs in sandy Sonoran desert scrub at elevations from 655 and 2,295 feet amsl. Known in California from fewer than twenty occurrences. The known range includes: Imperial, Riverside, and San Diego counties (CNPS 2023a). **Bloom Period:** June - July	**Absent:** Species is considered Absent from the Survey Area, as it was not observed when the plant would have been in bloom and/or conspicuous within the very minimally vegetated Survey Area during surveys.
EUPHORBIACEAE **SPURGE FAMILY**			
Abrams' spurge *Euphorbia abramsiana*	CRPR 2B.2	This species occurs in sandy flats of Mojavean desert scrub and Sonoran desert scrub at elevations from -15 and 4,300 feet amsl. The known range includes: Imperial, Riverside, San Bernardino, and San Diego counties (CNPS 2023a). **Bloom Period:** September - November (sometimes blooming as early as August)	**Moderate:** Moderate: Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
FABACEAE **PEA FAMILY**			
Salton milk vetch *Astragalus crotalariae*	CRPR 4.3	This species occurs in gravelly or sandy Sonoran desert scrub at elevations from -197 and 820 feet amsl. The known range includes: Imperial, Riverside, and San Diego county (CNPS 2023a). This species was found throughout Drainage System 4 as well as within the disturbed area north of the airport runway. Within the Survey Area, multiple individuals of this species were found within the Creosote Bush – White Bursage Scrub habitat in Drainage 4, as well as a single individual found with disturbed habitat north of the runway. Because of its CRPR 4.3 ranking, a focused plant survey is not required for this species. **Bloom Period:** January - April	**Present:** The following species was Present within the Survey Area. This species has a limited range and is on the CNPS watch list, but is considered not very threatened (CRPR 4.3) in which less than 20 percent of occurrences are threatened (CNPS 2023a).

ATTACHMENT D – SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
Harwood's milk vetch *Astragalus insularis* var. *harwoodii*	CRPR 2B.2	This species occurs in desert dunes and Mojavean desert scrub, with microhabitats that are sometimes gravelly or sometimes sandy at elevations up to 2,330 feet amsl. The known range includes: Imperial, San Bernardino, Riverside, and San Diego counties (CNPS 2023a). **Bloom Period:** January - May	**Absent:** Species occurs outside of the elevation range of the Survey Area.
gravel milk vetch *Astragalus sabulonum*	CRPR 2B.2	This species occurs in desert dunes, Mojavean desert scrub, and Sonoran desert scrub with microhabitats that are flats, sometimes gravelly, roadsides, usually sandy, and/or washes at elevations from -195 to 3,050 feet amsl. The known range includes: Imperial, Inyo, Riverside, and San Diego counties (CNPS 2023a). **Bloom Period:** February - June	**Moderate:** Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
LAMIACEAE **MINT FAMILY**			
Orocopia sage *Salvia greatae*	CRPR 1B.3	This species occurs in Mojavean desert scrub and Sonoran desert scrub at elevations from -130 to 2,705 feet amsl. The known range includes: Imperial and Riverside counties (CNPS 2023a). **Bloom Period:** March - April	**Absent:** Species is considered Absent from the Survey Area, as it was not observed when the plant would have been in bloom and/or conspicuous within the very minimally vegetated Survey Area during surveys.
LENNOACEAE **LENNOA FAMILY**			
sand food *Pholisma sonorae*	CRPR 1B.2	This species occurs in sandy Sonoran desert scrub and desert dunes at elevations up to 655 feet amsl. Sand food's parasitic host plants include *Eriogonum* spp., *Tiquilia* spp., *Ambrosia* spp., and *Pluchea* spp. The host plant, bur sage (*Ambrosia dumosa*), was present in the Survey Area. The known range includes Imperial county (CNPS 2023a). **Bloom Period:** April – June (sometimes as early as March)	**Moderate:** Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.

ATTACHMENT D – SPECIAL STATUS PLANT SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
LOASACEAE **LOASA FAMILY**			
Harwood's eriastrum *Eriastrum harwoodii*	CRPR 1B.2	This species occurs in desert dunes at elevations of 410 to 3,000 feet amsl. The known range includes Imperial, Riverside, San Bernardino, and San Diego counties (CNPS 2023a). **Bloom Period:** March - June	**Absent:** Species is considered Absent from the Survey Area because the species is restricted to habitats or environmental conditions that do not occur within the Survey Area.
hairy stickleaf *Mentzelia hirsutissima*	CRPR 2B.3	This species occurs in rocky Sonoran desert scrub at elevations up to 2,295 feet amsl. The known range includes: Imperial and San Diego counties (CNPS 2023a). **Bloom Period:** March - May	**Moderate:** Species is considered to have a Moderate potential for occurrence within the Survey Area because the habitat requirements and environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Survey Area.
SOLANACEAE **NIGHTSHADE FAMILY**			
Parish's desert-thorn *Lycium parishii*	CRPR 2B.3	This species occurs in coastal scrub and Sonoran desert scrub at elevations of 445 to 3,280 feet amsl. The known range includes: Imperial and San Diego counties and is presumed extirpated from San Bernardino County (CNPS 2023a). **Bloom Period:** March - April	**Absent:** Species is considered Absent from the Survey Area, as it was not observed when the plant would have been in bloom and/or conspicuous within the very minimally vegetated Survey Area during surveys.

Notes: FE: federally listed Endangered; FT: federally listed Threatened; SE: state listed Endangered; ST: state listed Threatened; SSC: state listed Species of Special Concern

California Rare Plant Rank (CRPR)

1A Plants presumed extinct in California.

1B Plants rare and endangered in California and throughout their range.

2 Plants rare, threatened, or endangered in California but more common elsewhere in their range.

3 Plants about which we need more information; a review list.

4 Plants of limited distribution; a watch list.

CRPR Extensions

0.1 Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).

0.2 Fairly endangered in California (20- to 80 percent occurrences threatened).

0.3 Not very endangered in California (less than 20 percent of occurrences threatened).

APPENDIX E – SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

ATTACHMENT E – SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
CLASS REPTILIA **REPTILES**			
barefoot banded gecko *Coleonyx switaki*	ST	Arid rocky areas on flatlands, canyons, thorn scrub, especially where there are large boulders and rock outcrops, and where vegetation is sparse. The majority of the range of this species is on the Baja California peninsula along the eastern edge of the Peninsular Mountain range as far south as near Santa Rosalia.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
Colorado desert fringe-toad lizard *Uma notata*	SSC	Found in the Colorado and Sonoran deserts south of the Salton Sea in Imperial and San Diego County. Requires fine, loose, wind-blown sand dunes, dry lakebeds, sandy beaches or riverbanks, desert washes, and sparse desert scrub.	**Low.** Habitat requirements or environmental conditions associated with the species occur within the Project Area. Historical records show an occurrence within 5 miles; however, it was recorded more than 14 years ago.
sandstone night lizard *Xantusia gracilis*	SSC	Restricted to the Truckhaven Rocks in Anza-Borrego Desert State Park in San Diego County. Inhabits a very small area of sandstone and mudstone.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
flat-tailed horned lizard *Phrynosoma mcallii*	SSC	Desert scrub, desert wash, succulent shrub, and alkalai scrub habitats. Restricted to areas of fine sand and sparse vegetation in desert washes and desert flats in central Riverside, eastern San Diego and Imperial counties.	**High.** Habitat for the species is present and historical records show recent occurrences within less than a mile.
CLASS AMPHIBIA **AMPHIBIAN**			
lowland leopard frog Lithobates yavapaiensis	SSC	This frog is found in streams, river side channels, springs, stock ponds in desert scrub, grassland, woodland and Pinyon Juniper. Historically they ranged from San Felipe Creek in Imperial County east to the lower Colorado river valley and up the Colorado River into Riverside and San Bernardino counties.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
CLASS CYPRINODONTIDAE **BONY FISH**			

ATTACHMENT E – SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
desert pupfish *Cyprinodon macularius*	FE, SE	Occurring in several springs, seeps and slow-moving streams in the Salton Sink Basin, as well as in backwaters and sloughs along the lower Colorado River.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
CLASS AVES **BIRDS**			
burrowing owl *Athene cunicularia*	SSC	This species inhabits dry, open, native or non-native grasslands, deserts, and other arid environments with low-growing and low-density vegetation. It is broadly distributed across the western United States, with populations in Florida and Central and South America. It may occupy golf courses, cemeteries, road rights-of-ways, airstrips, abandoned buildings, irrigation ditches, and vacant lots with holes or cracks suitable for use as burrows.	**Present.** Habitat and environmental conditions are present for this species. Two individuals were observed near areas with active burrows and owl sign including cough pellets and whitewash. They were observed within the Survey Area.
mountain plover *Charadrius montanus*	SSC	Shortgrass prairies and in high, open, semidesert habitats in western North America. Winters in similar agricultural habitats, prairies, and alkaline flats.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area. Historic records are more than 10 years old, just over 5 miles away near the Salton Sea.
western snowy plover *Charadrius nivosus nivosus*	FT, SSC	Ocean beaches, desolate salt flats and alkaline lakes. Normally found along the shores, peninsulas, offshore islands, bays estuaries and rivers of the United States Pacific Coast from California up to Oregon.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area. Historic records show that this species can be found more than 5 miles away along the coast of the Salton Sea.

ATTACHMENT E – SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
loggerhead shrike *Lanius ludovicianus*	SSC	Habitats may include oak savannas, open chaparral, desert washes, juniper woodlands, Joshua tree woodlands, and other semi-open areas. It can occupy a variety of semi-open habitats with scattered trees, large shrubs, utility poles, and other structures that serve as lookout posts while searching for potential prey. Dense, thorny shrubs and trees, brush piles, and tumbleweeds are preferred for nesting.	**Absent** Habitats or environmental conditions needed to support this species are of poor quality. Single historic record is more than 13 years old.
California black rail *Laterallus jamaicensis coturniculus*	ST	Tidal emergent wetlands dominated by pickleweed or in brackish marshes supporting bulrushes in association with pickleweed. Along Colorado River, prefers dense bulrush stands, shallow water, and gently sloping shorelines.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
Le Conte's thrasher *Toxostoma lecontei*	SSC	Occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs.	**Low.** Habitat requirements or environmental conditions associated with this species are present within the Project Area; however, historical records show the occurrences nearby are over 34 years old.
gull-billed tern *Gelochelidon nilotica*	SSC	Fresh and saline emergent wetlands, lakes, mudflats, croplands, grasslands and rarely brushlands. Formerly a fairly common summer resident at the Salton Sea on low sandy inlets.	**Absent.** Species is restricted to habitats or environmental conditions that do not occur within the Project Area.
CLASS MAMMALIA **MAMMALS**			
pallid bat *Antrozous pallidus*	SSC	They occur throughout most of California in habitats including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Most species are common in open, dry habitats with rocky areas. Roosts in caves, crevices, mines and occasionally in hollow trees and buildings.	**Absent.** Species is restricted to roosting and forage habitats and environmental conditions that do not occur within the Project Area. Historic records are more than 15 years old.

ATTACHMENT E – SENSITIVE WILDLIFE SPECIES POTENTIALLY OCCURING IN THE PROJECT AREA

Common Name *Scientific Name*	Status/ Designation	Habitat and Distribution	Potential to Occur
Palm Springs pocket mouse *Perognathus longimembris bangsi*	SSC	Flat to gently sloping topography, sparse to moderate vegetative cover and loosely packed or sandy soils. Occurs along the eastern edge of the Peninsular Ranges to Borrego Valley to the east side of the San Felipe Narrows. Historically they have also occurred throughout Coachella Valley and the San Gorgonio Pass area.	**Absent.** Habitats or environmental conditions needed to support this species are of poor quality. Three historic records are more than 5 miles away and 7 years old.
pocketed free-tailed bat *Nyctinomops femorosaccus*	SSC	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases. Prefers rock crevices in cliffs for roosting sites but can also roost in caverns or buildings.	**Absent.** Species is restricted to roosting and forage habitats and environmental conditions that do not occur within the Project Area. Historical records are over 23 years old.
western mastiff bat *Eumops perotis californicus*	SSC	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban area. Roosting in tight crevices on rock outcrops and buildings.	**Absent.** Species is restricted to roosting and forage habitats and environmental conditions that do not occur within the Project Area. Historical records are over 17 years old.

Notes: FE: federally listed Endangered; FT: federally listed Threatened; SE: state listed Endangered; ST: state listed Threatened; SSC: state listed Species of Special Concern

APPENDIX F – WILDLIFE SPECIES LIST

ATTACHMENT F – WILDLIFE SPECIES OBSERVED OR DETECTED

Scientific Name	Common Name
CLASS AVES	**BIRDS**
FALCONIDAE	**FALCONS**
Falco sparverius	American kestrel
STRIGIDAE	**TRUE OWLS**
Athene cunicularia	burrowing owl
TYRANNIDAE	**TYRANT FLYCATCHERS**
Sayornis saya	Say's phoebe
CORVIDAE	**JAYS AND CROWS**
Corvus corax	common raven
FRINGILLIDAE	**FINCHES**
Haemorhous mexicanus	house finch
TURDIDAE	**THRUSHES**
Sialia mexicana	western bluebird
ALAUDIDAE	**LARKS**
Eremophila alpestris	horned lark

ARCHAEOLOGICAL SURVEY REPORT FOR THE BURRTEC COMMERCIAL WATER WELL AND FARMING PROJECT, SALTON CITY, IMPERIAL COUNTY, CALIFORNIA

Prepared for:

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NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

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Client/Project Proponent: Burrtec Waste Industries, Inc.

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Report Title: Archaeological Survey Report for the Burrtec Commercial Water Well and Farming Project, Salton City, Imperial County, California

Type of Study: Cultural Resources Phase 1 Pedestrian Survey

New Sites: 21

New Isolates: 17

Updated Sites: 7

Updated Isolates: 9

USGS Quad: *Kane Spring NW* 7.5-minute quadrangle

Acreage: 250

Permit Numbers: N/A

Key Words: Burrtec, Salton City, Salton Sea Airport, County of Imperial, Township 11 South, Range 10 East, Positive Survey, Intensive Pedestrian Survey, *Kane Spring NW* USGS 7.5-minute Quadrangle, Lower Colorado Buffware, Colorado Buff, Topoc Buff, Parker Buff, Hearth Feature, milling, metate, sandstone slab.

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SECTION 1.0 – INTRODUCTION

Chambers Group, Inc. (Chambers Group) has been contracted by Imperial County Planning and Development Services Department to complete a cultural resources assessment, including a literature review and pedestrian survey, for the proposed Burrtec Commercial Water Well and Farming Project (Project or Proposed Project). The Proposed Project is located within Salton City, Imperial County (County), California, and includes the installation of a water well for farming activities in Imperial County, California.

The purpose of this investigation is to assess the potential for significant archaeological materials within the Project site and to determine if the current Project has the potential to adversely affect any significant cultural or paleontological materials. Chambers Group completed an archaeological and paleontological records search and literature review, as well as an intensive pedestrian survey, of the 250-acre proposed Project site. This report outlines the results of the cultural resources investigation for the proposed Burrtec Commercial Water Well and Farming Project site.

The following report has been conducted in accordance with the California Environmental Quality Act (CEQA). This report includes appropriate mitigation measures to ensure less than significant impacts to any cultural and paleontological resources potentially affected during construction.

1.1 PROJECT DESCRIPTION

Burrtec Waste Industries, Inc. (Applicant) is proposing the Burrtec Commercial Water Well and Farming Project. The Project would be located on approximately 250 acres in Imperial County surrounding the Salton Sea Airport (Airport). The heavy clay ground surrounding the Airport will require the addition of organics and amendments to support crop production. The Project would receive organics materials from regional diversion facilities and programs and will include composted green material; composted green/wood and food wastes; manures, dried Class A and Class A (EQ) biosolids (collectively referred to as compost). These materials would be occasionally supplemented with gypsum and other common agronomic additives at the Salton City Composting/Biosolids Drying Operation, and help to improve soil drainage and crop production and reduce water needs. The purpose of the Project is to support diversion of organics mandated by the State within Senate Bill (SB) 1383, resulting from regional recycling efforts. The Proposed Project intends to use the water from the well to support these efforts, which would include a planned farming operation around the runway and hanger building. While no specific crop has been chosen at this time, it is anticipated that the Applicant will utilize a water efficient crop. The water well would be approximately 600–750 feet deep and would produce up to approximately 200 acre-feet per year (AFY) of water. The Proposed Project's activities would require a Conditional Use Permit (CUP) 22-0002.

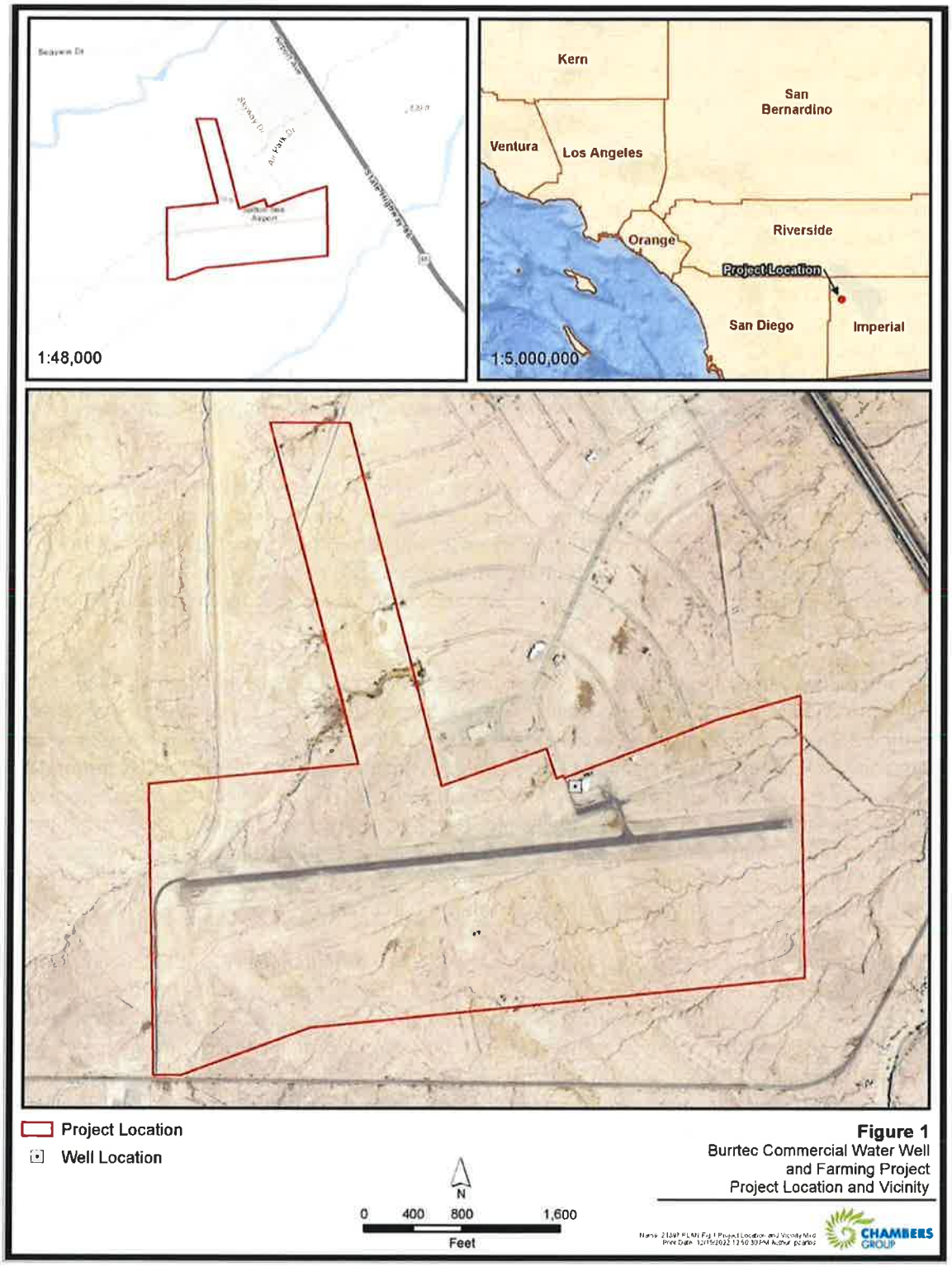
1.2 PROJECT LOCATION

The approximately 250-acre Project site is within Imperial County, California, and surrounds the existing Salton Sea Airport (Figure 1). The Project address is 1590 Air Crest Drive, which is just west of State Route 86 on land owned by the Applicant. The Project site is situated within Section 5, Township 11 South, Range 10 East, San Bernardino Base Meridian, occupying Assessor Parcel Numbers (APNs) 017-970-009, 017-970-010, 017-970-011, and 017-970-012.

Apart from the Airport runway and adjacent improvements, the Project site is mostly vacant desert land. Recreation and open space land uses surround the Project site. Land owned by the Bureau of Land Management (BLM) lies directly south and west of the Project site, and state-owned land lies southwest of the Project site. The land directly north of the Project site is zoned Low Density Residential Lot Size Minimum 0.5 Acres (R-1-L-.5), and the subdivision area has a mixture of Light Industrial (M-1), Medium Commercial (C-2), Low Density Residential (R-1), Medium Density Residential (R-2), and Medium to High Density Residential (R-3) zoning. The Imperial County Sanitary Landfill is just over two miles west of the Project site. An approved subdivision is directly northeast of the Project site; however, only six single family homes are currently developed in the subdivision, and no recent construction has occurred.

The Airport was first constructed in the late 1950s with a lighted main east–west runway 75 feet wide by 4,800 feet long. The runway lighting system was dismantled and is no longer operational. Also existing on-site is a 3,000-square-foot hanger, and a 1,250-square-foot office with restroom facilities. Additionally, an existing parking lot on the site contains parking for up to 15 vehicles. Air traffic in and out of the Airport is limited to periodic use by privately owned light aircraft and occasional rotary wing military aircraft from the regional training facilities that request use of the airport for practice maneuvers. The entire Airport area has a security fence around the existing runway and facilities. The Applicant owns and maintains the existing facilities.

Figure 1: Project Location and Vicinity Map



1.3 REGULATORY FRAMEWORK

1.3.1 California Environmental Quality Act

Work for this Project was conducted in compliance with CEQA. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

1.3.2 Paleontological Resources

CEQA requires that public agencies and private interests identify the potential environmental consequences of their projects on any object or site of significance to the scientific annals of California (Division I, California Public Resources Code [PRC] § 5020.1 [b]). Appendix G in § 15023 provides an Environmental Checklist of questions (PRC 15023, Appendix G, § VII, part f) that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?" CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has provided guidance specifically designed to support state and federal environmental review. The SVP broadly defines significant paleontological resources as follows (SVP 2010, page 11):

> Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, or diagnostically important; are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes; or which could improve our understanding of paleochronology, paleoecology, paleophylogeography, or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates, and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiometric dating is possible. As such, common fossils (especially vertebrates) may be scientifically important and therefore considered significant.

The CEQA Guidelines (Article 1, § 15002(a)(3)) state that CEQA is intended to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible. If paleontological resources are identified during the Preliminary Environmental Analysis Report, or other initial project scoping studies (e.g., Preliminary Environmental Study), as being within the proposed project area, the sponsoring agency must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource.

1.3.3 Cultural Resources

Under the provisions of CEQA, including the CEQA Statutes (PRC § 21083.2 and § 21084.1), the CEQA Guidelines (Title 14 California Code of Regulations [CCR], § 15064.5), and PRC § 5024.1 (Title 14 CCR §

4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for California Register of Historical Resources (CRHR) eligibility (PRC § 5024.1).

The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term *historical resources* includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (CCR § 15064.5(a)). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). The California Office of Historic Preservation (OHP 1995:2) regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation.

California Public Resources Code

Section 5097.5 of the PRC states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

As used in this PRC section, "public lands" means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, public agencies are required to comply with PRC § 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

California Register of Historic Resources

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing on the CRHR. The CRHR was designed to be used by state and local agencies, private groups, and citizens to identify existing cultural resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for inclusion in the CRHR. A resource is considered significant if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the California Register must retain enough of their historic character or appearance to be able to convey the

reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archaeological resource" as defined in PRC § 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
    - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
    - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
    - Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a "unique archaeological resource" under CEQA PRC § 21083.2(g) are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC § 21083.2(h)).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

1.3.1 National Register of Historic Places

While the Project is notably regulated under CEQA, the National Historic Preservation Act (NHPA) of 1966, as amended, served as guideline by which California legislation and regulation regarding cultural resources were modeled. The framework for which resources may be eligible under the CRHR guidelines is strongly reflective of that which resources may be found eligible for inclusion on the NRHP. When considering resources for their eligibility on the CRHR the criteria and integrity standards of the NRHP are often consulted and followed.

The NRHP was established by the NHPA as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of

location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

A: It is associated with events that have made a significant contribution to the broad patterns of our history.

B: It is associated with the lives of persons who are significant in our past.

C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

D: It has yielded, or may be likely to yield, information important in prehistory or history.

Notwithstanding Criteria Considerations, in general cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions.

In addition to the four National Register Criteria noted above, qualifying resources must retain aspects of integrity. Integrity is the ability of a property to convey its significance (National Park Service [NPS] 1997). "The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance" (NPS 1997:44). The National Park Service Bulletin 15 (1997) identifies seven aspects of integrity that a property should retain, and include: Location, Design, Setting, Materials, Workmanship, Feeling, and Association. While maintenance of all aspects of integrity is not required, a property should possess most of the aspects that are integral to its ability to convey its significance. Understandably, not all aspects of integrity are applicable across the range of buildings, structure, objects, or sites under evaluation. Aspects such as design, workmanship or feeling likely may not be integral to understanding the significance of an archaeological deposit, whereas these would be essential in understanding a significant building, or structure.

NPS Bulletin 15 further exemplifies how to broadly assess the integrity of eligible resources when applying the qualifying NRHP Criteria. Under Criteria A and B, a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). If the property is a site (such as a treaty site) where there are no material cultural remains, the setting must be intact. Eligible archaeological sites must be in overall good condition, with excellent preservation of features, artifacts, and spatial relationships to the extent that these remains are able to convey important associations with events or persons.

Under Criterion C, a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique. A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style. Eligible archaeological sites must be in overall good condition with excellent preservation of features,

artifacts, and spatial relationships to the extent that these remains are able to illustrate a site type, time period, method of construction, or work of a master.

For properties eligible under Criterion D, including archaeological sites and standing structures studied for their information potential, less attention is given to their overall condition than if they were being considered under Criteria A, B, or C. Archaeological sites, in particular, do not exist today exactly as they were formed. There are numerous cultural and natural processes that may have altered the deposited materials and their spatial relationships. For properties eligible under Criterion D, integrity is based on the property's research value to yield important information that addresses important research questions, such as those identified in the historic context documentation, or in the research design for projects meeting the *Secretary of the Interior's Standards for Archeological Documentation* (NPS 1997:46), or that has yielded important information furthering our understanding of prehistory.

Imperial County

Section III(B) of the Imperial County Conservation and Open Space Element describes the cultural resources, goals, and objectives to protect such resources (County of Imperial 2016). The planning goals and objectives are described below.

Goal 3 of the goals and objectives section of the Imperial County Conservation and Open Space Element addresses the preservation of cultural resources. Goal 3 states that the County will "preserve the spiritual and cultural heritage of the diverse communities of Imperial County" (County of Imperial 2016). Three objectives are enumerated to assist in implementation of the goal:

- **Objective 3.1:** Project and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.
- **Objective 3.2:** Develop management strategies to preserve the memory of important historic periods, including Spanish, Mexican, and early American settlements of Imperial County.
- **Objective 3.3:** Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burials sites.

SECTION 2.0 – SETTINGS

2.1 ENVIRONMENTAL SETTING

The Project site lies within the southern portion of the Salton Trough, a northwesterly trending tectonic basin located between the Peninsular Ranges on the west and the Chocolate Mountains on the east (Dorsey 2006). The area is characterized by numerous northwest-trending strike-slip faults, including from east to west, the San Andreas, San Jacinto, and Elsinore Faults. Roughly 2,000 square miles of the Salton Trough lie below sea level, and in many respects, the area can be considered a landward extension of the Gulf of California. In fact, if it were not for the tremendous volumes of sediment transported by the modern Colorado River and its Pliocene and Pleistocene counterparts, the Gulf of California would extend northward as far as Riverside County. However, during the past five million years, as the ancestral and modern-day Colorado River has cut down through the Colorado Plateau carving out the Grand Canyon and carrying the eroded sediment load southward, the river has built a sediment dam—the Colorado River delta—across the Salton Trough from east to west. At various times during the history of the prograding Colorado River delta, the full discharge of the river flowed north, forming a large, inland freshwater lake (actually a succession of ephemeral lakes; see discussion below). Periodic changes in the river's course would divert the flow to the south and into the Gulf of California. Cut off from its freshwater supply, the prehistoric lake would eventually dry up due to evaporation.

In point of fact, there has been not only one but a succession of ephemeral lakes in the area, spanning a period of almost three million years (Kirby et al. 2007). The oldest ephemeral lakes, from approximately 2.5 to 1.1 million years ago, accumulated extensive deposits of claystone, mudstone, and siltstone that are collectively referred to by geologists as the Borrego Formation (Lutz et al. 2006). A younger succession of ephemeral, freshwater lakes that formed approximately 1.1 to 0.5 million years ago accumulated thick deposits of fine-grained sediments referred to by geologists as the Palm Springs/Borrego Formation (Steely et al. 2009). More recently, including up to late prehistoric times (~450 years ago), a series of ephemeral freshwater lakes accumulated sediments that today are exposed extensively across the central portion of the Salton Trough and are referred to by geologists as Lake Cahuilla sediments.

Lake Cahuilla was a former freshwater lake that periodically occupied a major portion of the Salton Trough during late Pleistocene to Holocene time (approximately 37,000 to 240 years ago), depositing sediments that underlie the entire Project site. Generally, Lake Cahuilla sediments consist of an interbedded sequence of both freshwater lacustrine (lake) and fluvial (river/stream) deposits.

The modern climate is arid, with hot dry summers and cool winters. Average annual rainfall is 79 mm, of which a majority falls in January. The sea and feeder rivers are home to a small number of fish species, while the sea and surrounding areas are known for avian biodiversity. Over 400 species of birds have been documented at the Salton Sea due to its location along a major migration route. Vegetation includes desert scrub, including yucca and cholla cactus, and desert saltbush. Common desert wildlife includes mule deer, bobcat, desert kangaroo rat, cactus mouse, black-tailed jackrabbit, Gambel's quail, and red-diamond rattlesnake.

2.1.1 Geological and Paleontological

2.1.2 Geologic Setting

The Project site is located within the Salton Trough, a geologically complex zone resulting from the interaction of the San Andreas Fault system, along which the Pacific plate is drifting towards Alaska, and the northward motion along the Gulf of California, part of the East Pacific Rise, continues to widen the Gulf by seafloor spreading. The Salton Trough is a topographic and structural depression extending 130 miles northwesterly between the Peninsular Ranges on the west and the Chocolate Mountains on the east and including the Coachella and Imperial Valleys (Apple et al. 1997). The Salton Trough evolved during the late Cenozoic, resulting from tectonic forces that continue to separate the Baja California region from mainland Mexico. As a result, a rift was created that is now represented by numerous fault systems including the San Andreas Fault.

Formation of the Salton Trough dates back nearly 5 million years ago. The ancestral and modern-day Colorado River has carved out the Colorado Plateau and transported an abundance of eroded sediment south, building a sediment dam, the Colorado River delta found today across the Salton Trough from east to west (Chambers Group 2020).

Sedimentation within the Salton Trough dates back to the Miocene and Pliocene epochs (approximately 23 million years to 2.6 million years ago), during which time marine transgressions led to the formation of several underlying marine sedimentary formations. Pleistocene-age geologic units reflect non-marine deposition, suggesting that the Colorado River delta had developed significantly to exclude further transgressions by the Gulf of California (Waters 1980). Marine transgressive deposits were now replaced by lacustrine conditions during the Pleistocene as the Colorado River was periodically redirected into the Salton Trough, depositing lacustrine silts and clays. Several major geologic units have been documented on the western side of the Salton Sea, including the Borrego Formation, Ocotillo Conglomerate, Palm Springs/Borrego Formation, Quaternary lake deposits, recent alluvium, and recent dune sands (Apple et al. 1997). A succession of ephemeral lakes in the area has led to the deposition of the formations discussed below. The most recent series of ephemeral freshwater lakes accumulated sediments that are exposed across the central portion of the Salton Trough and are referred to as Lake Cahuilla sediments (Chambers Group 2019).

Palm Springs Group

The Pliocene-Pleistocene Palm Springs Group was deposited nearly 3.58 million to 0.78 million years ago. Sediments of the Palm Springs Group record sedimentation from the ancient Colorado River delta and terrestrial deposits in the Colorado Desert (Chambers Group 2019). Within the vicinity of the Project site, the Palm Springs Group is approximately 4,000 feet thick and is gradational with the underlying Imperial Formation and overlying Borrego Formation. The Palm Springs Group is further divided into five detailed units: the Arroyo Diablo Formation, Olla Formation, Tapiado Claystone, Hueso Formation, and Canebrake Conglomerate.

Borrego Formation

The Pliocene to Pleistocene Borrego Formation outcrops is present west of the south end of the Salton Sea and along the east shore. These formations are well exposed in the central part of the Project site. The sediment is composed of gray clay interbedded with sandstone and contains a lacustrine fauna of

mollusks, ostracods, and foraminifera (Morton 1977). Dibblee (1954) dates the Borrego Formation as late Pleistocene, but the presence of a vertebrate fauna may place the Formation as middle Pleistocene.

Palm Springs/Borrego Formation

The Early Pleistocene Palm Springs/Borrego Formation, described by Dibblee (1954), consists of approximately 2000 feet of sandstone, pebble conglomerate, and light gray silts and clays and is representative of the lacustrine facies of the Ocotillo Conglomerate (Apple et al. 1997). It is exposed on the basinward side of the Ocotillo Conglomerate in the Superstition Hills and in the area north and west of the junction of State Routes 86 and 78. It is exposed near the eastern boundary of the Project Area.

Quaternary Lake Deposits

A former freshwater lake during the late Pleistocene and Holocene (approximately 37,000 to 240 years ago), Lake Cahuilla sediments consist of interbedded, unconsolidated freshwater lacustrine and fluvial deposits and represent various stands of Lake Cahuilla ranging up to 100 feet thick (Chambers Group 2019; Morton 1977).

Holocene Alluvium and Sand Dunes

Holocene alluvium has been documented to be the broadest at the head of the Colorado River delta and within dry washes originating from surrounding mountains. It consists of mostly clay and silt grading to sandy gravel near the mountains (Morton 1977). Dune sands commonly appear on the eastern and western areas of Imperial Valley and range from thin veneers to broad dunes 25 feet thick (Morton 1977).

Paleontological Context

Lake Cahuilla was a former freshwater lake that periodically occupied a major portion of the Salton Trough during late Pleistocene to Holocene time (approximately 37,000 to 240 years ago), depositing sediments that underlie the entire Project site (mapped as Quaternary lake deposits by Jennings [1967]). Generally, Lake Cahuilla sediments consist of an interbedded sequence of both freshwater lacustrine (lake) and fluvial (river/stream) deposits. The Lake Cahuilla Beds have yielded well-preserved subfossil remains of freshwater clams and snails (Stearns 1901) and sparse remains of freshwater fish (Hubbs and Miller 1948). The paleontological resources of the Lake Cahuilla Beds are considered significant because of the paleoclimatic and paleoecological information they can provide (Jefferson 2006); therefore, these deposits are assigned a high paleontological potential (SVP 2010).

2.2 CULTURAL SETTING

2.2.1 Prehistory

The Project site is located in the midsection of the lower Colorado Desert, in which Lake Cahuilla was situated. In addition to paleontological potential, the archaeological deposition found around the shoreline of Lake Cahuilla radiocarbon dates as old as 1440 before the present (BP) (Waters 1983; Hubbs et al. 1962) and shows demonstrable evidence of cultural activity in the area. Due to Lake Cahuilla creating a massive freshwater oasis, seasonal occupations are evident in archaeological deposits, which includes pottery, ground and chipped stone artifacts, and archaeological features such as hearths and rock fish traps (Waters 1983; Phukan et al. 2019). In regard to the ethnographic landscape, the Cahuilla, Kumeyaay,

and Cocopa settled in various locations, including the northern portion of the basin, southern portion of the basin, and the delta, respectively (Phukan et al. 2019). It is believed that only the Cocopa used fishing nets as a subsistence method, while Kumeyaay and Cahuilla constructed stone fish trap features, which can be difficult to identify as such during pedestrian transect survey. Evidence from middens and human coprolites suggest subsistence on either razorback suckers or bonytail chubs, demonstrating the environmental importance of this area (Phukan et al. 2019). Cultural resources found in the area are believed to be strongly associated with the presence of Lake Cahuilla due to temporal context and functional use of landscape, which may yield high archaeological evidence regarding how people adapted to the changing environment around the lake.

Archaeological studies have been limited in the Salton Sea desert region. This paucity of archaeological investigation has resulted in undefined and imperfect archaeological classification schemas and typologies. Therefore, the prehistoric time periods used by archaeologists to describe the southern Imperial County desert region borrow heavily from those chronologies established for San Diego County prehistory, with some minor Colorado Desert-specific clarifications. The three general time periods accepted in the region are the San Dieguito Complex, the Archaic period, and the Late Prehistoric period. These periods are briefly described below.

The earliest recognized occupation of the region, dating to 10,000 to 8,000 years BP, is known as the San Dieguito complex (Rogers 1939, 1945). Assemblages from this occupation generally consist of flaked stone tools. Evidence of milling activities is rare for sites dating to this period. It is generally agreed that the San Dieguito complex shows characteristics of the Western Pluvial Lakes Tradition (WPLT), which was widespread in California during the early Holocene. The WPLT assemblage generally includes scrapers, choppers, and bifacial knives. Archaeologists theorize this toolkit composition likely reflects a generalized hunting and gathering society (Moratto 1984; Moratto et al. 1994; Schaefer and Laylander 2007).

The period following, the Archaic (8,500 to 1,300 BP), is traditionally seen as encompassing both coastal and inland adaptations, with the coastal Archaic represented by the shell middens of the La Jolla complex and the inland Archaic represented by the Pauma complex (True 1980). Coastal settlement is also thought to have been significantly affected by the stabilization of sea levels around 4,000 years ago that led to a general decline in the productivity of coastal ecosystems. Artifacts associated with this period include milling stones, unshaped manos, flaked cobble tools, Pinto-like and Elko projectile points, and flexed inhumations (Schaefer and Laylander 2007). Colorado Desert rock art studies have led researchers to suggest Archaic period origins for many petroglyph and pictograph styles and elements common in later times (Whitley 2005). More recently, several important late Archaic period sites, consisting of deeply buried middens with clay-lined features and living surfaces, cremations, hearths, and rock shelters, have been documented in the northern Coachella Valley. Faunal assemblages show a high percentage of lagomorphs (rabbits and hares). The larger sites suggest a more sustained settlement type than previously known for the Archaic period in this area (Schaefer and Laylander 2007).

The Late Prehistoric period (1,300–200 BP) is marked by the appearance of small projectile points, indicating the use of the bow and arrow, the common use of ceramics, and the general replacement of inhumations with cremations, all of which are characteristic of the San Luis Rey complex as defined by Meighan (1954). The San Luis Rey complex is divided temporally into San Luis Rey I and San Luis Rey II, with the latter distinguished mainly by the addition of ceramics. Along the coast of northern San Diego County, deposits containing significant amounts of Donax shell are now often assigned to the Late Prehistoric based on a well-documented increase in the use of this resource at this time (e.g., Byrd and Reddy 1999). The inception of the San Luis Rey complex is suggested by True (1966; True et al. 1974) to

mark the arrival of Takic speakers from regions farther inland. Waugh (1986) is in general agreement with True but suggests that the migration was probably sporadic and took place over a considerable period. Titus (1987) cites burials showing physical differences between pre- and post-1,300 BP remains to further support this contention. However, some researchers have suggested that these Shoshonean groups may have arrived considerably earlier, perhaps as early as 4,000 years ago. Vellanoweth and Altschul (2002:102–105) provide an excellent summary of the various avenues of thought on the Shoshonean Incursion.

2.2.2 Ethnography

The Project site was utilized by the Cahuilla, Kumeyaay, Kamia, and Quechan. The nearest reservation is that of the Torres Martinez Desert Cahuilla Indians of the Torres-Martinez Reservation, which was established by Executive Order on May 15, 1876. The reservation is situated on the northwest side of the Salton Sea, roughly 25 miles from the Project site, and encompasses a total area of 24,024 acres, half of which is submerged below water. The following is a brief ethnographic and archaeological summary of the Cahuilla, Kumeyaay, Kamia, and the Quechan.

Cahuilla

The Project site currently falls within the ethnographic territory of the Cahuilla, whose ancestors may have entered this region of Southern California approximately 3,000 years ago (Moratto 1984: 559–560). The Cahuilla ancestral territory is located near the geographic center of Southern California and varied greatly topographically and environmentally, ranging from forested mountains to desert areas. Natural boundaries such as the lower Colorado Desert provided the Cahuilla separate territory from the neighboring Mojave, Ipai, and Tipai. In turn, mountains, hills, and plains separated the Cahuilla from the adjacent Luiseño, Gabrielino, and the Serrano (Bean 1978: 575).

The Cahuilla relied heavily on the exploitation and seasonal availability of faunal and floral resources through a pattern of residential mobility that emphasized hunting and gathering. Important floral species used in food, for manufacturing of products, and/or for medicinal uses primarily included acorns, mesquite and screw beans, piñon nuts, and various cacti bulbs (Bean 1978:578). Coiled-ware baskets were common and used for a variety of tasks including food preparation, storage, and transportation (Bean 1978:579).

Networks of trails linked villages and functioned as hunting, trading, and social conduits. Trade occurred between the Cahuilla and tribes such as the Gabrielino as far west as Santa Catalina and the Pima as far east as the Gila River. Both goods and technologies were frequently exchanged between the Cahuilla and nearby Serrano, Gabrielino, and Luiseño cultural groups (Bean 1978:575–582).

The Cahuilla are believed to have first come into contact with Europeans prior to the Juan Bautista de Anza expedition in 1774; however, little direct contact was established between the Cahuilla and the Spanish except for those baptized at the Missions San Gabriel, San Luis Rey, and San Diego (Bean 1978:583–584). Following the establishment of several *asistencias* near the traditional Cahuilla territories, many Spanish cultural forms—especially agriculture and language—were adopted by the Cahuilla people (Bean 1978:583–584; Lech 2012:17–30).

Through the Rancho and American periods, the Cahuilla continued to retain their political autonomy and lands despite more frequent interactions with European-American immigrants. In 1863, a large number

of the population was killed by a sweeping smallpox epidemic that affected many of the tribal groups in Southern California. The first reservations established in Imperial County ca. 1865 saw many of the Cahuilla remaining on their traditional lands. After 1891, however, all aspects of the Cahuilla economic, political, and social life were closely monitored by the federal government; a combination of missionaries and government schools drastically altered the Cahuilla culture (Bean 1978:583–584).

Kumeyaay

In addition to the Cahuilla, Native American people occupying the region also included the Kumeyaay. The Kumeyaay or Tipai-Ipai were formerly known as the Kamia or Diegueños; the former Spanish name applied to the Mission Indians living along the San Diego River; they are referred to as the Kumiai in Mexico. Today, members of the tribe prefer to be called Kumeyaay (Luomala 1978). The territory of the Kumeyaay extended north from Todos Santos Bay near Ensenada, Mexico, to the mouth of the San Luis Rey River in north San Diego County and east to the Sand Hills in central Imperial Valley near the current Project site. The Kumeyaay occupied the southern and eastern desert portions of the territory, while the Ipai inhabited the northern coastal region (Luomala 1978).

The primary source of subsistence for the of Kumeyaay was vegetal food. Seasonal travel followed the ripening of plants from the lowlands to the higher elevations of the mountain slopes. The diet of Kumeyaay included buds, blossoms, potherbs, wild seeds, cactus fruits, and wild plums. The Kumeyaay practiced limited agriculture within the floodplain areas of their territory, planting melons, maize, beans, and cowpeas. Women sometimes transplanted wild onion and tobacco plants to convenient locations and sowed wild tobacco seeds. Deer, rodents, and birds provided meat as a secondary source of sustenance. Families also gathered acorns and piñon nuts at the higher altitudes.

Kumeyaay structures varied with the seasons. Summer shelter consisted of a wind break, tree, or a cave fronted with rocks. Winter dwellings had slightly sunken floors with dome-shaped structures made of brush thatch covered with grass and earth (Gifford 1931; Luomala 1978). Village locations were selected for seasonal use and were occupied by exogamous, patrilineal clans. Three or four clans would winter together and then disperse into smaller bands during the spring and summer (Luomala 1978).

Upon death, the Kumeyaay cremated the body of the deceased. Ashes were placed in a ceramic urn and buried or hidden in a cluster of rocks. The family customarily held a mourning ceremony one year after the death of a family member. During this ceremony, the clothes of the deceased individual were burned to ensure that the spirit would not return for his or her possessions (Gifford 1931; Luomala 1978).

It is estimated that the pre-contact Kumeyaay population living in this region ranged from approximately 3,000 (Kroeber 1925) to 9,000 (Luomala 1978). Beginning in 1775, the semi-nomadic life of the Kumeyaay began to change as a result of contact with European-Americans, particularly from the influence of the Spanish missions. Through successive Spanish, Mexican, and Anglo-American control, the Kumeyaay people were forced to adopt a sedentary lifestyle and accept Christianity (Luomala 1978). As of 1968, Kumeyaay population was somewhere between approximately 1,322 (Shipek 1972 in Luomala 1978) and 1,522 (Luomala 1978); by 1990, an estimated 1,200 Kumeyaay lived on reservation lands, while 2,000 lived elsewhere (Pritzker 2000).

Trade was a very important feature of Kumeyaay subsistence. Coastal groups traded salt, dried seafood, dried greens, and abalone shells to inland and desert groups for products such as acorns, agave, mesquite beans, and gourds (Almstedt 1982:10; Cuero 1970:33; Luomala 1978:602). Travel and trade were

accomplished by means of an extensive network of trails. Kumeyaay living in the mountains of eastern San Diego County frequently used these trails to travel down to the Kamia settlement of *Xatopet* on the east-west portion of the Alamo River to trade and socialize in winter (Castetter and Bell 1951; Gifford 1918:168; Spier 1923:300; Woods 1982).

Kamia

The Kamia lived to the east of the Project site in an area that included Mexicali and bordered the Salton Sea. The traditional territory of the Kamia included the southern Imperial Valley from the latitude of the southern half of the Salton Sea to well below what is the United States–Mexico international border (Forbes 1965; Luomala 1978:593). People who identify as Kamia continue to live along the border between northern Baja California, Mexico, and California. In the past, main settlements of the Kamia were along the New and Alamo Rivers (Gifford 1931). Their Kumeyaay language belongs to the Yuman–Cochimí language family.

Subsistence of the Kamia consisted of hunting and gathering and floodplain horticulture (Barker 1976; Gifford 1931). In normal years, the Colorado River would overflow its banks in the spring and early summer and fill rivers such as the New and Alamo. When the floodwaters receded, the Kamia would plant in the mud. A dam was maintained at *Xatopet* on the east-west portion of the Alamo River to control water flow and allow farming in years when water flow was insufficient (Castetter and Bell 1951:43). Gifford (1931:22) and Castetter and Bell (1951:43) suggested these were recent adaptations and not traditional life ways. However, Bean and Lawton (1973); Lawton and Bean (1968), and Shipek (1988) argue that irrigation was indigenous.

The Kamia's major food staples were mesquite and screwbean, called by the Kamia *anxi* and *iyix*, respectively (Gifford 1931:23), along with the seeds of the ironwood (*Olneya tesota*; also known as *palo fierro* in Spanish) and palo verde. Neither palo verde nor ironwood was considered a particularly desirable food resource (Castetter and Bell 1951:195–196). Acorns, also an important seasonal food, were gathered in the mountains to the west of Kamia territory in October and acquired through trade from the southern Kumeyaay (Gifford 1931).

Hunting contributed to the diet in a minor way in terms of overall caloric intake but provided valuable protein; skins and bones were used for clothing, blankets, and tools. Small game, primarily rabbits, was most frequently taken, using bow and arrow or rabbit stick (*macana*). Sometimes, fires were set along sloughs to drive rabbits out. Individuals using only bow and arrow hunted deer and mountain sheep. Fish were taken in sloughs with bow and arrow, as well as by hand, hooks, basketry scoops, and seine nets (Gifford 1931:24).

Quechan

The Quechan (*Kwatsan*) were formerly called the Yuma Indians. Their territory was centered at the confluence of the Gila and Colorado Rivers (present-day Yuma, Arizona) but extended north on the Colorado about 60 miles and 30 miles up the Gila. According to Quechan tradition, the northern boundary was near Blythe, California; the southern boundary reached into Baja California and Sonora, Mexico. Their neighbors on the northwest were the Cahuilla and Luiseño, and the Kamia were to the west. Their eastern boundary was just west of Gila Bend, Arizona (Miguel n.d., cited in Bee 1982:37).

The Quechan had a relatively large population. They were mentioned by Hernando de Alarcón or Melchor Díaz at the time of first Spanish contact in 1540. The next visitor to the area, Juan Oñate, estimated a population of about 4,000 in 1604 (Bee 1983; Forbes 1965). Oñate mentioned a stable horticultural and gathering economy. Throughout winter and spring, the Quechan lived in large, seasonal settlements or rancherias located on terraces above the Colorado River floodplain. These winter settlements relocated from time to time, and establishing their precise locations is problematic (Bee 1982, 1983; Forde 1931). When the floodwaters of spring receded, the Quechan left their winter villages on the river terraces and dispersed into camps near their 2- to 3-acre horticultural plots distributed along the river floodplain. Extended families resided in these camps. Planting occurred in the mud as the river receded. Major crops included maize, squash, pumpkin, watermelon, and wheat (Castetter and Bell 1951). Wheat was introduced by Father Eustebio Francisco Kino in 1700 (Castetter and Bell 1951). After the fall harvest season, the Quechan would reconvene in villages on terraces above the river to avoid seasonal flooding (Bee 1983; Forde 1931).

Quechan villages were actually a collection of houses, or rancherias, dispersed along the Colorado and Gila rivers. Households consisted of composite families that lived together and moved more or less as a unit from place to place within a constantly changing floodplain environment. The annual flood of the Colorado constantly changed the gardening areas, eroding some, and burying others under tons of silt. This undoubtedly changed the desirability of potential village sites, campsites, and garden plots from time to time. The Quechan burned the houses and possessions of the dead (Bee 1982, 1983; Forde 1931; Trippel 1889), which also contributed to the movement of villages from time to time (Trippel 1889). Like other Lower Colorado Yuman peoples, the Quechan moved through their territory in a very dynamic cultural landscape (Bee 1982, 1983; Forde 1931).

2.2.3 History

The first significant European settlement of California began during the Spanish Period (1769–1821) when 21 missions and four presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated economic and political life over the greater California region. The purpose of the missions was primarily political control and forced assimilation of the Native American population into Spanish society and Catholicism, along with economic support to the presidios (Castillo 1978).

In the 1700s, due to pressures from other colonizers (Russians, French, British), New Spain decided that a party should be sent north with the idea of founding both military presidios and religious missions in Alta California to secure Spain's hold on its lands. The aim of the party was twofold. The first was the establishment of presidios, which would give Spain a military presence within its lands. The second was the establishment of a chain of missions along the coast slightly inland, with the aim of Christianizing the native population. By converting the native Californians, they could be counted as Spanish subjects, thereby bolstering the colonial population within a relatively short time (Lech 2012: 3–4).

The party was led by Gaspar de Portolá and consisted of two groups: one would take an overland route, and one would go by sea. All parties were to converge on San Diego, which would be the starting point for the chain of Spanish colonies. What became known as the Portolá Expedition set out on March 24, 1769. Portolá, who was very loyal to the crown and understood the gravity of his charge, arrived in what would become San Diego on July 1, 1769. Here, he immediately founded the presidio of San Diego. Leaving one group in the southern part of Alta California, Portolá took a smaller group and began heading north to his ultimate destination of Monterey Bay. Continuing up the coast, Portolá established Monterey Bay

as a Spanish possession on June 3, 1770, although it would take two expeditions to accomplish this task. Having established the presidios at San Diego and Monterey, Portolá returned to Mexico. During the first four years of Spanish presence in Alta California, Father Junípero Serra, a member of the Portolá expedition and the Catholic leader of the new province, began establishing what would become a chain of 21 coastal missions in California. The first, founded concurrently at San Diego with the presidio, was the launching point for this group. During this time, four additional missions (San Carlos Borromeo de Carmelo, San Antonio de Padua, San Gabriel Arcángel, and San Luis Obispo de Tolosa) were established (Lech 2012: 1–4).

The Mexican Period (1821–1848) began with the success of the Mexican Revolution in 1821, but changes to the mission system were slow to follow. When secularization of the missions occurred in the 1830s, the missions' vast land holdings in California were divided into large land grants called ranchos. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo 1978; Cleland 1941). Even after the decree of secularization was issued in 1833 by the Mexican Congress, missionaries continued to operate a small diocesan church. In 1834, the San Gabriel Mission, including over 16,000 head of cattle, was turned over to the civil administrator.

In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848–present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and other new immigrants to California from various parts of the United States, most of whom settled in the northern part of the state. For those settlers who chose to come to southern California, much of their economic prosperity was fueled by cattle ranching rather than by gold. This prosperity, however, came to a halt in the 1860s because of severe floods and droughts, as well as legal disputes over land boundaries, which put many ranchos into bankruptcy.

Imperial County was formed in 1907 from a portion of San Diego County known as Imperial Valley and is the newest of California's counties. It is known for being one of California's most prosperous agricultural communities because of its vast system of canals stemming from the Colorado River. The diversion of the Colorado River first occurred in 1905 and continued via a number of subsequently constructed canals through northern Mexico until 1942, when the long-planned All-American Canal was completed. It is this water, conveyed from the Colorado River, which makes Imperial County so rich (Hoover et al. 2002).

Salton City is the largest development on the Salton Sea coast in the County. Salton City was established in 1958, primarily developed by Texas-based oil refiner and land developer M. Penn Phillips and the Holly Corporation in the 1960s (San Diego Union Tribune 2005; Laflin 1995; Stringfellow 2013). The city was planned and developed as a large resort community with an extensive road, water, sewer and power grid capable of supporting 40,000 residents on 12,000 residential lots; however, demand for property in Salton City fell drastically short of the planners' expectations due to its isolation and lack of local employment opportunities (Lorey 2003; Greenfield 2006). Most of the original tourist-related structures fell during this time, including the Truckhaven Cafe, the Salton Bay Yacht Club hotel and restaurant, and the Holly House motel and restaurant (later renamed the Desser House and then the Sundowner).

In the 2000s, development in Salton City began to rise as a result of the escalating California housing market. Cheap land and housing costs, improvements to Highway 86, and a casino opened by Torres Martinez Desert Cahuilla Indians attracted new residents (Salorio 2005; Streitfeld 2007).

SECTION 3.0 – RESEARCH ISSUES/DESIGN

The goal of an archaeological survey is to systematically inspect the proposed Project site to determine the presence and extent of any identified archaeological deposits, to document what the resource consists of, and attempt to determine the time of occupation and function of the site within the appropriate historical settlement, economic systems, and the context of the region to make a determination of eligibility for the CRHR or the NRHP.

Below is a list of questions and data requirements needed to evaluate the data potential of previously identified sites to be eligible for listing on the CRHR or the NRHP.

Several important research questions can benefit from simply knowing where sites are, what general period they belong to, how extensive and complex they are, and what kind of economic activities may have taken place there. This kind of basic data may contribute to a number of regional economic, settlement, chronological, subsistence, and lithic technology questions. For example, during a survey, one can generally infer the kinds of economic activities that took place from a thoughtful examination of the surface artifacts and the features. These site attributes also can help one determine the settlement type and site function. Knowing where the site is and how it fits into settlement and economic systems is invaluable for reconstructing prehistoric lifeways.

Archaeological site types expected in the survey area based on the record search data include lithic scatters, ceramic scatters, artifact scatters, temporary campsites, hearths, historic trash scatters, and isolates. They are defined as follows:

- Lithic scatters are characterized by a scatter of chipped or flaked stone resulting from human manipulation. This includes cores, flakes, and stone tools such as hammerstones and projectile points. For this survey, a sparse lithic scatter is defined as an array of lithics that is either limited to a few artifacts in total or is widely distributed but still few in number relative to the site area.
- Lithic reduction stations and quarries are generally single- or limited-use areas where lithic raw material is collected and reduced to some sort of predetermined form, generally considered a "preform" state. Expected lithic waste includes a predominance of primary and secondary flakes, with few tertiary or finishing flakes.
- Ceramic scatters are characterized by a scatter of multiple pot sherds close to one another. "Pot drop" also falls within this category.
- Artifact scatters can combine both lithic and ceramic components, along with ground stone artifacts such as manos and metates.
- Hearth sites contain any feature that indicates the existence of cooking activity, such as roasting pits, cracked or burnt rock (often described as fire-affected rock), discolored soil, ash, and carbonized wood or plants.
- Temporary campsites contain a deposit characterized by a wide range of artifacts and possibly features that represent a variety of human activities. Artifacts could include flaked stone tools, chipped stone debris (flakes), ground stone tools, and pot sherds. Cremations and hearths are examples of features that could be identified within the Project site. Artifacts are within 30 meters of each other.

- Historic trash scatters consist of an accumulation of debris, such as glass bottles, metal cans, miscellaneous metal objects, and any other historic items.
- Historic roads and road segments are alignments often developed as part of the transportation network connecting mining operations, homesteads, ranches, and outside supply points. Prior to road formalization, these networks may have been adapted from earlier Native American trail systems or from early historic-period trails developed to transport goods and raw materials via wagon train and, later, early automobiles.
- Isolates (or Isolated Occurrences) consist of fewer than three artifacts within 30 meters of one another.

As noted in Cultural Setting above, numerous interpretations of cultural historical data have been presented to describe and understand the archaeological record. Crosscutting many, if not most of these schemes, are fundamental questions that are asked of most archaeological deposits. These include questions related to site formation processes, chronology, settlement and site function, subsistence, and trade and exchange.

3.1 SITE FORMATION PROCESSES

Every archaeological deposit is unique and bounded by the parameters and conditions of its initial occupation and post-depositional conditions subsequent to its abandonment. Archaeological sites may range from small lithic scatters to deeply buried sites with features, middens, and other evidence of long-term occupation and complexity of activity sets. The nature of site occupation (e.g., food procurement and/or processing, other types of resource procurement, social events, and short-term or seasonal occupation) can lead to spatial patterning of artifacts, food remains, and site features.

Post-depositional processes can alter the character of archaeological deposits (Erlandson 1984; Bocek 1992; Gross 1993; Schiffer 1987; Waters 1992). Bioturbation, erosion, alluvial deposition, and historic and modern land use can affect the integrity of archaeological sites. While these activities can be a disturbance to simple sites, such as small lithic or simple artifact scatters, interpretation of particularly complex, multicomponent archaeological sites can become quite complicated. It is expected, given the geologic and geographic setting of the Project site, that a variety of post-depositional factors will have had potentially adverse effects to the archaeological sites. These factors may include infrastructural development, public activities, fluvial down-cutting or filling, previous archaeological investigations, and bioturbation. The nature and the extent of these agents may bear heavily on the interpretive potential of the archaeological deposit, the scientific value of the data therein, and its eligibility for inclusion on the NRHP. To the extent to which these factors occur:

- Do inclusive chronometric data permit the identification and definition of temporally and/or spatially discrete prehistoric occupations?
- Are the definitions of discrete components supported by multiple, independent chronological controls, and, if so, how similar are their age estimates?
- What kinds of impacts are affecting sites in different parts of the study area, and how extensive are they?
- Have adverse impacts affected the data potential of each evaluated site?

The soil profiles and disturbance from water erosion or bioturbation may be analyzed to determine if impacts have affected the integrity of the site as defined by NPS site integrity conditions described above.

3.2 CHRONOLOGY AND DATING

The issue of chronology, or when sites were created and occupied, is fundamental to most archaeological research designs because this provides the primary framework of prehistory. Previous research in the desert region within and around the Salton Trough has documented a range of archaeological sites dating from the early Holocene to the Late Prehistoric periods. Archaeological deposits adjacent to the Project site range from small lithic scatters to temporary encampments or minor habitation sites. Apart from single-component sites, such as pot drops or scatters, quarries, or lithic reduction stations, more complex sites tend to have assemblages that may possess projectile points, small flake-based tools, and ceramics but also may include ground stone, such as metates and manos. Because chronological controls are essential to most archaeological investigations, several basic questions concerning the temporal data potential of evaluated sites pertain to the current study, including:

- Can the chronological placement of the archaeological site(s) be determined?
- What kinds of chronometric data can these sites provide? How well do those data correlate in terms of the age estimates they provide?
- Are there data indicating the presence of multiple occupation episodes?
- Do diagnostic, time-sensitive artifacts appear to fit with temporal patterns recognized in the surrounding region? Are there any unique diagnostic items present?
- Can chronometric data from these sites help to refine dating schemes in the local region?

To answer chronology questions, an adequate number of radiocarbon dates from different locations/features and/or levels would be needed.

Organic materials provide an often-reliable source of 14C for radiocarbon dating. However, for the data and associated dates to have meaningful significance to the site the organic matter must be recovered from reliable contexts; that is, the datable source must possess a clear association with the site or feature it is meant to date. Recovery of shell, bone, plant remains, or carbonaceous sediments from primary and intact contexts, such as in association with a hearth feature or some other type of organized space, would best answer questions regarding chronology. Selection of noncontextualized carbon samples should be discouraged. Site formation processes can introduce random carbon, both prehistoric and modern, into soil matrices through a variety of mechanisms, such as bioturbation, aeolian, or fluvial events.

Additionally, time-sensitive artifact classes, such as beads, ceramics, and projectile points, can be utilized to derive a relative time period of occupation. King (1990) and Bennyhoff and Hughes (1987), among others, have noted that certain bead types and styles change through time. Similarly, projectile points are frequently used to generally date a deposit, though it is argued that much research remains to clarify the timing of these changes (e.g., Warren 1980; Jenkins and Warren 1984; Vaughn and Warren 1987; Schroth 1994). Because ceramic production is understood generally to be a Late Prehistoric adaptation, links between particular Native American groups and ceramic wares and types have been proposed (Seymour and Warren 2004; Warren and Schneider 2000; Newland and Kaijankoski 2013). Collection and diligent cataloging of ceramic data may help infer which ethnographic group utilized the area of the archaeological deposit. Particular wares and types also have temporal signatures (e.g., Waters 1982), and presence or

absence of time-sensitive wares and types would locate the deposit in a particular, albeit broadly defined, timeframe. Analysis of ceramic sherds can, if for example rims are recovered, identify the type and sometimes style of a ceramic vessel. Since vessel shapes and sizes change through time, recovered items with the necessary characteristics may help identify vessel form and, potentially, the time frame of production. Attributes relating to clay types and sources, tempering materials, and construction and firing techniques have been demonstrated to be related to certain cultural groups, production centers, and timelines. Recovery and proper identification of ceramic types would help locate archaeological deposits within a time frame and help identify associations with cultural groups.

If the archaeological assemblage cannot be adequately defined chronologically, either because of a lack of datable material or because of extensive intermixing of chronologically diverse components, the deposit would be considered to be less likely to possess a significant research potential.

3.3 SETTLEMENT AND SITE FUNCTION

A wide variety of site types are found throughout the Salton Trough and within a one-mile radius of the Project site. While certain data may be lacking in some, these sites likely span much of the history of occupation within the desert region. Over time, from the early Holocene (i.e., Paleoindian and early Archaic periods) to the Late Prehistoric periods, significant shifts in settlement and subsistence occurred. Cultural and subsistence strategies have been adjusted with changing environmental conditions. A variety of data sets would be expected to elucidate the character of the site and its placement in the overall settlement pattern. Additionally, the presence of ceramics, while being an indicator of later periods of occupation, may also help with identifying cultural affinity. To identify more fully site function and general settlement patterns, certain data are required.

Specific data requirements include information on general patterns of lithic reduction and raw material use, including exotic stone.

- Was tool production occurring at sites in the Project site, or were tools being discarded in exhausted condition?
- What does the debitage assemblage imply about the production and/or maintenance of stone tools at project sites?

In addition to developed midden soils and other archaeological features, information on ceramic vessel form, function, and the diversity therein is also critical for determining whether residential occupation was brief or prolonged.

- How many kinds of vessels are indicated in the assemblage, and for what purposes were they used? The latter is particularly important for understanding intensification in the exploitation of plant foods (see Eerkens 2001).
- Is there evidence, in the form of clay residues and other manufacturing residues, that clay vessels were being manufactured at sites in the Project site?

Site occupation and settlement duration may be evidenced by the presence of ground stone manufacture and intensity of use. Hale (2001) argues that the presence of shaped milling equipment (e.g., manos and pestles) can be an indication that populations are somewhat mobile, implying use in offsite contexts—a

shaped mano or pestle would be lighter, and therefore less costly in terms of energy and time spent carrying the item to specialized off-site areas.

Among the questions above, answers regarding site type may deal with identifying whether the resource in question is a residential base or some supporting logistical site exhibiting less complex activity sets, such as quarrying, milling stations, other resource extraction or processing sites, lithic reduction stations, or infrequently visited camp sites (Binford 1980).

3.4 SUBSISTENCE

Milling implements occur at numerous sites in the general region and within a one-mile radius of the Project site. Both macroscopic vegetal remains (primarily seeds) and microscopic plant residues as well as faunal remains may be present. Several questions can be addressed using data, if recovered, from intact contexts within archaeological deposits:

- What vegetal and faunal remains are present?
- How specialized was the subsistence strategy (i.e., were any species a focus of exploitation)?
- What types of "exotic" food resources are present?
- Can faunal/vegetal remains be correlated to types of ground stone used at site loci?
- Can seasonal and/or diachronic changes be discerned in the subsistence emphasis?
- If diachronic change is detected, can this be related to technological or dietary changes, such as the introduction of ceramics, arrow points, or changes in milling technology, or shifts in exploited resources?

Answers to such questions typically involve collection of data during excavation and by flotation of column samples and processed by seasoned professionals or trained specialists, such as a paleoethnobotanist, for analysis. Additionally, lithic tools, points, and ground stone often retain evidence of past use. This evidence can be in the form of use wear, as well as blood and plant residue. Protein residue analysis (Dier 2011) often can help identify what plant or animals were being processed.

3.5 TRADE AND EXCHANGE SYSTEMS

Transcending a number of the themes above, trade and exchange networks can leave traces in the archaeological record that can help answer lower-order questions pertaining to chronology, subsistence, and settlement patterns. There are higher-level questions that can be raised as well, such as how are exotic resources acquired: are they traded, or directly accessed; by whom; what are the relationships that may limit or permit direct access? Overall, these higher-level questions are not necessarily asked at the individual, small, or limited site level but rather are framed within the larger cultural system at the regional level. However, many lower-level questions may be asked to better understand concerns relating to site chronology, and subsistence and settlement patterns.

- Are there exotic materials to suggest trade and exchange with coastal and/or inland groups?
- What are the sources of obsidian, if any, found in the area?
- Other fine-grained lithics are found in the area, such as chert and chalcedony. Are these microcrystalline quartzes (Luedtke 1992) local or exotic to the area?

Recovery of shell beads or other ornaments would be indicative of trade or exchange with coastal or other inland groups and may provide indications of origins of manufacture or use. Shell bead analysis based on bead types in many cases are both temporally and culturally relative (e.g., Bennyhoff and Hughes 1987). Additionally, stable isotope analysis can help isolate the location of where the shell material was gathered and its likely source of production (Eerkens et al. 2010), while carbon dating could yield data pointing to the likely period of production.

Similarly, recovery of obsidian of any quantity can be effectively sourced through a number of research facilities (e.g., Geochemical Research Laboratory). If obsidian items are of sufficient dimensions, they also may be able to yield relative temporal data through hydration band analysis.

3.6 NATIVE AMERICAN VALUES

Many Native Americans regard archaeological deposits as important; however, this may or may not mean the same as being significant. Evaluation of places (formerly "properties") identified as important or significant to tribal and non-tribal groups is outlined in NPS Bulletin 38: Guidelines for Evaluating and Documenting and Traditional Cultural Places (1990, revised 2022).

Per revisions within NPS Bulletin 38:

> A 'traditional cultural place'—'TCP,' for short—is a building, structure, object, site, or district that is eligible for inclusion in the National Register for its significance to a living community because of its association with cultural beliefs, customs, or practices that are rooted in the community's history and that are important in maintaining the community's cultural identity (NPS 2022:7).

The 1990 amendments to the NHPA directed the Secretary of the Interior to study ways of preserving and conserving the intangible elements of cultural heritage, such as arts, skills, folklife, and folkways, and to recommend ways of preserving, conserving, and encouraging the diverse cultural traditions that inform and express American heritage. Bulletin 38 was developed to provide guidance for determining whether places associated with such intangible cultural practices—places that might have traditional cultural significance—are eligible for inclusion on the NRHP. It was intended to help federal agencies, state and tribal historic preservation officers (SHPOs/ THPOs), certified local governments (CLGs), Native American Tribes, Native Hawaiian organizations, and others who might wish to nominate such places to the NRHP or who might need to consider a place's eligibility as part of a Federal undertaking (NPS 2022:7–8)

The NPS Bulletin 38 recognizes that the NRHP, "being by definition a list of *places*, is not the appropriate tool for recognizing cultural resources that are *only* intangible"; however, "*places* where these intangible cultural practices take place may be eligible" (NPS 2022). The NPS Bulletin 38 particularly notes that these places must have significance to "a living community because of its association with beliefs, customs, or practices that are rooted in the community's history and that are important in maintaining the community's cultural identity and retains its ability—its INTEGRITY—to convey its significance" (NPS 2022:16). Additionally, these places must be evaluated from the "point of view of those who attribute significance to them. The traditional knowledge of those who value a place is an independent line of evidence provided by the people—the experts—who are the authorities in their culture and the connection that culture has to the place" (NPS 2022:19).

SECTION 4.0 – PREVIOUS RESEARCH

4.1 PALEONTOLOGICAL RESOURCES

Chambers Group conducted a desktop review that included a review of published and unpublished paleontological literature and a search of museum records obtained by the San Diego Natural History Museum (SDNHM; McComas 2020). Chambers Group requested a paleontological literature search on January 5, 2023, and the results were returned on January 11, 2023. Chambers Group used these results to gain a more thorough understanding of the underlying geologic units and the potential paleontological sensitivity of the proposed Project site. Chambers Group is not providing an assessment or evaluation of these resources.

The SDNHM does not have any recorded fossil localities that lie within one mile of the Project site. However, the SDNHM determined that the proposed Project has the potential to impact late Pleistocene- to Holocene-age Lake Cahuilla Beds, in particular, sediments associated with the Borrego Formation. The early Pleistocene-age (approximately 2 to 1.1 million years old) lacustrine deposits of the Borrego Formation underlie the majority of the Project site. The unit is the youngest member of the Palm Spring Group—a thick sequence (nearly 8,600 feet) of very fine-grained sedimentary rocks exposed in the Borrego Badlands. Fossils recovered from strata of the Borrego Formation consist of well-preserved shells of freshwater mollusks, ostracods, and diatoms, rare marine microfossils, and rare, but well-preserved vertebrates. Plant material, including petrified wood, is also known. Accordingly, the Borrego Formation is assigned a high paleontological potential because of the widespread occurrence of freshwater molluscan fossils and the documentation of rare but well-preserved vertebrate fossils and terrestrial plant fossils.

4.2 CULTURAL RESOURCES

A records search dated January 6, 2023, was obtained from the South Coastal Information Center (SCIC) at San Diego State University (Appendix A). The records search provided information on all documented cultural resources and previous archaeological investigations within a one-quarter-mile record search radius. Resources consulted during the records search conducted by the SCIC included the NRHP, California Historical Landmarks, California Points of Historical Interest, and the California State Historic Resources Inventory. Results of the records search and additional research are detailed below.

4.2.1 Reports within the Study Area

According to the records search provided by the SCIC, 12 cultural resource studies have previously been completed within the one-quarter-mile records search radius. Of the 12 previous studies, 10 of these studies were within the current Project site and are shown in **bold** (Table 1).

Table 1: Previous Cultural Resources Studies within the Study Area

Report Number	Year	Author	Title	Resources
IM-00243	**1981**	**WESTEC Services, INC.**	**Truckhaven Project Geothermal Exploratory Wells Draft Environmental Impact Report**	**N/A**
IM-00266	**1982**	**Stuart, Bob**	**Draft Environmental Impact Report Airport Land Use Plan**	**N/A**
IM-00372	1987	Caltrans	Fourth Addendum—Archaeological Survey Report for Units 1, 2, and 3 of the proposed State Route 86 Expressway	N/A
IM-00429	**1989**	**Gallegos, Dennis and Andrew Pigniolo**	**Cultural Resource Survey of Eight Geothermal Well Sites and Access Roads in the Truckhaven Project Area, Imperial County, California**	**N/A**
IM-00442	**1990**	**Gallegos, Dennis and Andrew Pigniolo**	**Cultural Resource Survey of Eight Geothermal Well Sites and Access Roads in the Truckhaven Project Area, Imperial County, California**	**N/A**
IM-00517	**1994**	**Imperial County Planning Department**	**West Shores/Salton City Urban Area Plan**	**N/A**
IM-00942	2003	Underwood, Jackson	Archaeological Survey and Monitoring of Truckhaven Geophysical Test Sites Ocotillo Wells State Vehicular Recreation Area, Imperial County, California	N/A
IM-01348	**2006**	**Schaefer, Jerry**	**A Class I Cultural Resources Inventory of the Truckhaven Geothermal Leasing Area, Imperial County, California**	**N/A**
IM-01496	**2012**	**Mealey, Marla**	**Archaeological Site Reexamination and Reconnaissance at Ocotillo Wells State Vehicular Recreation Area, 2008 Through 2011**	**N/A**
IM-01679	**2016**	**Stropes, Tracy A. and Smith, Brian F.**	**A Class III Cultural Resources Study for the Salton City Landfill Water Service Connection Project Imperial County, California**	**N/A**
IM-01725	**2017**	**Dice, Michael H.**	**Truckhaven Geothermal Project, Class III Cultural Resources Survey, Imperial County, California**	**Yes**
IM-01817	**2022**	**Chambers Group, Inc.**	**ORNI 5 Truckhaven Seismic Testing Archaeological and Paleontological Monitoring Report**	**Yes**

4.2.2 Previously Recorded Cultural Resources Within the Study Area

Based on the records search conducted by the SCIC, 80 cultural resources have previously been identified within the one-quarter-mile records search radius. Of the 80 previously identified resources, 15 are within the Project site and are shown in bold (Table 2).

Table 2: Previously Recorded Cultural Resources within the Study Area

Primary Number	Trinomial	Age	Description
P-13-000047	CA-IMP-000047	Prehistoric	Site: Habitation
P-13-003221		Historic	Site: Wagon road
P-13-006247	CA-IP-006247	Prehistoric	Site: Habitation
P-13-006249	**CA-IMP-006249**	**Prehistoric**	**Site: Artifact scatter**
P-13-006291	CA-IMP-006291	Prehistoric	Isolate: Lithic
P-13-006292	CA-IMP-006292	Prehistoric	Isolate: Lithic
P-13-006293	CA-IMP-006293	Prehistoric	Site: Lithic scatter
P-13-006294	CA-IMP-006294	Prehistoric	Isolate: Lithic
P-13-006304	CA-IMP-006304	Prehistoric	Isolate: Lithic
P-13-014306*		Historic	Site: Military road
P-13-015081	**CA-IMP-012462**	**Prehistoric**	**Site: Lithic scatter**
P-13-015083	CA-IMP-012464	Prehistoric	Feature: Hearth
P-13-016877		Historic	Isolate: Bottle
P-13-016878		Historic	Isolate: Bottle
P-13-016879		Historic	Isolate: Bottle
P-13-016880		**Historic**	**Isolate: Can**
P-13-016881		Historic	Isolate: Oil filter
P-13-016882		Historic	Isolate: Well head
P-13-016883		Historic	Isolate: Trenching bit
P-13-016884		Historic	Isolate: Bearing
P-13-016885		**Historic**	**Site: Fence; infrastructure**
P-13-016886		Prehistoric	Isolate: Lithic
P-13-016887		**Prehistoric**	**Isolate: Lithic**
P-13-016888		Prehistoric	Isolate: Lithic
P-13-017173	CA-IMP-012788	Prehistoric	Site: Lithic scatter
P-13-017174	CA-IMP-012789	Prehistoric	Site: Artifact scatter; traps
P-13-017175	**CA-IMP-012790**	**Prehistoric**	**Site: Lithic scatter**
P-13-017176	**CA-IMP-012791**	**Prehistoric**	**Site: Lithic scatter**
P-13-017177	CA-IMP-012792	Prehistoric	Site: Artifact scatter
P-13-017178		**Prehistoric**	**Isolate: Lithic**
P-13-017179		**Prehistoric**	**Isolate: Lithic**
P-13-017180	CA-IMP-012793	Multi-component	Site: Lithic scatter; trash scatter
P-13-017181	CA-IMP-012794	Multi-component	Site: Lithic scatter; trash scatter
P-13-017182	CA-IMP-012795	Prehistoric	Site: Lithic scatter
P-13-017184	**CA-IMP-012797**	**Prehistoric**	**Site: Lithic scatter**
P-13-017186		Historic	Isolate: Can
P-13-017187		**Prehistoric**	**Isolate: Lithic**
P-13-017188		**Prehistoric**	**Isolate: Lithic**
P-13-017189		Prehistoric	Isolate: Lithic
P-13-017190		Prehistoric	Isolate: Lithic
P-13-017191		Prehistoric	Isolate: Lithic

Table 2: Previously Recorded Cultural Resources within the Study Area

Primary Number	Trinomial	Age	Description
P-13-017192		Prehistoric	Isolate: Lithic
P-13-017194		Prehistoric	Isolate: Lithic
P-13-017493		Prehistoric	Isolate: Lithic
P-13-017494		**Prehistoric**	**Isolate: Lithic**
P-13-017495		**Prehistoric**	**Isolate: Lithic**
P-13-017496		**Prehistoric**	**Isolate: Lithic**
P-13-017497		Prehistoric	Isolate: Lithic
P-13-017510		Prehistoric	Isolate: Lithic
P-13-017552		Prehistoric	Isolate: Lithic
P-13-017553		Prehistoric	Isolate: Lithic
P-13-017586	CA-IMP-012905	Prehistoric	Site: Artifact scatter; traps
P-13-017593	CA-IMP-012912	Prehistoric	Site: Lithic scatter
P-13-017663	CA-IMP-012988	Prehistoric	Site: Artifact scatter
P-13-017681	CA-IMP-013007	Prehistoric	Site: Habitation
P-13-017856		Historic	Isolate: Can
P-13-017857		Historic	Isolate: Can
P-13-017858		Historic	Isolate: Can
P-13-017859		Prehistoric	Isolate: Lithic
P-13-017860		Historic	Isolate: Can
P-13-017861		Historic	Isolate: Munition
P-13-017901	CA-IMP-013090	Historic	Site: Trash scatter
P-13-017902	CA-IMP-013091	Multi-component	Site: Habitation; trash scatter
P-13-018338		Historic	Isolate: Can
P-13-018339		Historic	Isolate: Can
P-13-018340		Historic	Isolate: Can
P-13-018344	CA-IMP-013301	Historic	Site: Cans
P-13-018548		Prehistoric	Isolate: Lithic
P-13-018549		Historic	Isolate: Can
P-13-018550		Historic	Isolate: Can
P-13-018553		Historic	Isolate: Can
P-13-018557		Prehistoric	Isolate: Lithic
P-13-018561		Prehistoric	Isolate: Lithic
P-13-018562		Historic	Isolate: Can
P-13-018566	CA-IMP-013350	Prehistoric	Site: Lithic scatter
P-13-018567	CA-IMP-013351	Historic	Site: Trash scatter
P-13-018617		Prehistoric	Isolate: Lithic
P-13-018638		Historic	Isolate: Plastic
P-13-018649		Prehistoric	Isolate: Lithic

* Not previously recorded within the Project site, but found to extend beyond previous recording limits, traversing the Project site.

4.2.3 Native American Heritage Commission

Sacred Lands File Search

Chambers Group submitted a request for a search of the Sacred Lands Files (SLF) housed at the California Native American Heritage Commission (NAHC) on January 5, 2023. The results of the search were returned

on February 8, 2023, and were negative, stating that the absence of specific site information in the SLF does not indicate the absence of cultural resources in the Project site that still may be impacted by Project development. The NAHC response provided contact information for the 27 individuals or tribes that may have information on cultural resources on the Project site (APPENDIX A).

SECTION 5.0 – FIELD METHODS

Survey of the Project site took place over the course of January 23 to January 27, 2023, and concluded on January 31, 2023. The systematic survey was directed by Chambers Group's Principal Investigator Richard Shultz, and included Chambers Group archaeologists Lucas Tutschulte, Eduvijes Davis-Mullens, and Eric Kowalski. The Project site was surveyed at 15-meter intervals, and crews were equipped with submeter-accurate Global Positioning Systems (GPS) units for recording spatial data and to document the survey area and all findings through ArcGIS Collector and Survey 123. No geographic obstructions or impediments were present, and the crew were able to survey the Project site in its entirety. All of the Project site was clear ground-obscuring vegetation, facilitating visual inspection of the ground surface. Surface visibility was high (95 percent, or greater).

The archaeologists assessed the ground surface for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), historic-period artifacts (e.g., metal, glass, ceramics), sediment discoloration that might indicate the presence of a cultural midden, or cremation remains, as well as depressions and other features indicative of the former presence of structures or buildings (e.g., post holes, foundations).

When an artifact or feature was observed during survey, GPS data was recorded using the ArcGIS Collector application in combination with an Eos Arrow series GPS with sub-meter accuracy to document all identified materials. All sites and isolates were documented with field notes and photographs, and measurements were taken for flaked lithic tools, or unique items. When applicable maker's marks, date codes, patent numbers, or labels on historic glass or other artifacts were recorded for further post-fieldwork analysis. All identified thermal feature areas and locations where ceramic sherds were identified, were carefully inspected for the presence of bone material to assess the area for the presence of possible human remains. Where items were initially identified additional close-order survey was conducted to detect all potentially visible materials within the area.

SECTION 6.0 – RESULTS

6.1 RESULTS OF ARCHAEOLOGICAL SURVEY

Chambers Group archaeologists identified 40 cultural resource localities (Table 3) as a result of the systematic survey of the Project site. Two of the newly identified resources were in close proximity to previously recorded archaeological sites, and these new data have been included in updates to those sites (P-13-017175 and -017184). A total of 17 resources were identified as isolated occurrences (IO or isolates). Isolates consist of fewer than three artifacts within a defined area (not more than 30 meters from each artifact). A total of 21 resources were identified as sites. While an archaeological site usually consists of three or more artifacts, single features, such as stacked rock cairns or isolated thermal features, are considered sites.

All 17 identified isolates are prehistoric lithic resources, which represent a total of 26 items. These consists predominately of lithic debitage, such as primary flakes (11 of a total of 26 items, or 42 percent), secondary flakes (5 of 26, or 19 percent), or angular waste (2 of 26, or 8 percent). Other items include assayed cobbles (these generally exhibit fewer than four flake removals and are indicative of a rejected lithic source) (3 of 26, or 12 percent), cores (3 of 26, or 12 percent), and scrapers (2 of 26, or 8 percent).

A total of 16 of the 40 localities identified are prehistoric-period archaeological sites. These comprise eight lithic scatters (50 percent), five artifact scatters (31 percent), two habitation sites (12 percent), and a food resource processing site (6 percent).

A total of five historic-period localities were identified within the Project site. Two of the resources are stacked sandstone cairns. These are temporally ambiguous as cairn construction transcend temporal assignments and are found in both prehistoric- and historic-period settings. However, the condition and context of these two resources appear to favor an historic-period construction. Two deposits were identified as trash scatters. Both appear to be one-time events associated with a particular activity taking place within the Project site. One appears to be associated with construction or maintenance of the Salton Sea Airport runway apron, and one appears to be associated with a gravel or road construction operation. The last deposit appears to be a 1960s-era campsite likely associated with game-hunting activity. All of these resources are described below and illustrated in Table 3.

Table 3: Newly Identified Cultural Resources Within Project Site

Resource Name (Temporary)	Trinomial Number	Age	Description
CGI-21397-01		Historic	Feature: Cairn
CGI-21397-02		Historic	Site: Camp site
CGI-21397-03		Historic	Feature: Cairn
CGI-21397-04		Prehistoric	Isolate: Lithic
CGI-21397-06		Historic	Site: Trash scatter; 1971
CGI-21397-07		Prehistoric	Site: Lithic scatter; possible habitation
CGI-21397-08		Prehistoric	Isolate: Lithic
CGI-21397-09		Historic	Site: Trash scatter
CGI-21397-10		Prehistoric	Site: Habitation
CGI-21397-11		Prehistoric	Incorporated into P-13-017184
CGI-21397-12		Prehistoric	Isolate: Lithic
CGI-21397-13		Prehistoric	Site: Artifact scatter
CGI-21397-14		Prehistoric	Site: Food processing
CGI-21397-15		Prehistoric	Isolate: Lithic
CGI-21397-16		Prehistoric	Isolate: Lithic
CGI-21397-17		Prehistoric	Isolate: Lithic
CGI-21397-18		Prehistoric	Site: Lithic scatter
CGI-21397-19		Prehistoric	Isolate: Lithic
CGI-21397-20		Prehistoric	Site: Lithic scatter
CGI-21397-21		Prehistoric	Isolate: Lithic
CGI-21397-22		Prehistoric	Site: Lithic scatter
CGI-21397-23		Prehistoric	Site: Artifact scatter
CGI-21397-24		Prehistoric	Isolate: Lithic
CGI-21397-25		Prehistoric	Isolate: Lithic
CGI-21397-26		Prehistoric	Site: Lithic scatter
CGI-21397-27		Prehistoric	Isolate: Lithic
CGI-21397-28		Prehistoric	Isolate: Lithic
CGI-21397-29		Prehistoric	Site: Lithic scatter
CGI-21397-30		Prehistoric	Site: Artifact scatter
CGI-21397-31		Prehistoric	Isolate: Lithic
CGI-21397-32		Prehistoric	Site: Habitation
CGI-21397-33		Prehistoric	Isolate: Lithic
CGI-21397-34		Prehistoric	Site: Lithic scatter
CGI-21397-35		Prehistoric	Isolate: Lithic
CGI-21397-36		Prehistoric	Site: Lithic scatter
CGI-21397-37		Prehistoric	Site: Artifact scatter
CGI-21397-38		Prehistoric	Site: Artifact scatter
CGI-21397-39		Prehistoric	Incorporated into P-13-017175
CGI-21397-40		Prehistoric	Isolate: Lithic
CGI-21397-41		Prehistoric	Isolate: Lithic

CGI-21397-01 is a stacked sandstone cairn. It is constructed of immediately available Palm Springs/Borrego Formation sandstone clasts and arranged in an irregular form of seven courses. The base measures approximately seven feet northeast–southwest by five feet northwest–southeast and extends to approximately two feet in height. The cairn is situated on an elevated outcrop of sandstone clasts. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-02 is an apparent temporary camp consisting of an arrangement of Palm Springs/Borrego Formation sandstone clasts and a minor trash deposit. The sandstone clasts are arranged in an oval shape typical of a "fire ring" and indicate evidence of thermal alteration. The ring measures approximately four and-a-half feet northwest–southeast by four feet northeast–southwest and extends to approximately nine inches in height. Located with the ring are at least two all-ferrous metal, "church key"–opened, 12-ounce beverage cans. A third beverage can is located approximately two meters to the east of the feature. The camp site is possibly associated with post-War leisure activities that generally increased in desert regions, particularly seasonal hunting and off-road activities. Shotgun shells were noted elsewhere around the Project site, which further suggest seasonal hunting use of the open landscape, particularly of fowl. The feature is located among other minimal outcrops of Palm Springs/Borrego Formation within an open flat. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-03 is a stacked sandstone cairn. It is constructed of immediately available Palm Springs/ Borrego Formation sandstone clasts and arranged in an irregular form of seven or eight courses. The base measures approximately eight-and-a-half feet north–south by five feet east–west and extends to approximately 18 inches in height. The feature is situated in an area of sandstone outcrops. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-04 is an isolated occurrence (IO, or isolate) consisting of a feldspathic assayed cobble and a quartzite core. The assayed cobble is tabular in shape and appears to resemble a conglomerate in cross-section, largely composed of coarse-grained feldspar or similar mineral. A gray quartzite core was identified approximately 23 meters to the east-northeast of the assayed cobble. The core is bifacially flaked around much of its perimeter. A linear diversion ditch south of the old airport runway alignment is adjacent to the isolate. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-06 is a historic-period trash scatter. It is composed of several glass bottles, bimetallic pull-tab beverage cans, and ferrous metallic cans. Glass containers included a 16-ounce clear glass beverage bottle with aluminum screw cap seal ring manufactured by the Latchford Glass Company in 1971, an amber bottle manufactured by the Owens-Illinois Glass Company in 1971, a 16-ounce salad dressing container for Cole's Market Blue Cheese manufactured by the Owens-Illinois Glass Company in 1971, two Coors amber bottles manufactured by the Columbine Glass Company in 1971, and three clear-glass 12-ounce bottles manufactured by the Glass Containers Corporation in 1971. The deposit also consists of at least two tab-top bimetallic 12-ounce beverage cans, four pop-top all aluminum 12-ounce Coors cans, at least one all-ferrous-metal castellated seam 12-ounce beverage can, and one approximately 16-ounce sanitary

can (smashed). The metallic cans are similarly dated to the bottles, with a range between 1965 and 1975. The site measures approximately 11 meters northeast–southwest by 6.5 meters northwest–southeast. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-07 is a pre-/protohistoric lithic scatter and a possible temporary enclosure. The site comprises 13 artifacts widely distributed across a prominent resistant sandstone outcrop that is elevated well above the surrounding area. The artifacts are located within the outcropping sandstone matrix and out along the southeastern apron that flattens away from the prominence. At the eastern margin of the site, previously identified isolate P-13-017178 was relocated (in archaeological parlance, a site is said to be relocated when it is found where it was initially or previously recorded) and incorporated into the complex. Other artifacts include one gray quartzite unifacial core; one tan quartzite bifacial core; four gray quartzite primary and two secondary flakes; three white quartzite primary flakes; one black, fine-grained metavolcanic secondary flake; and one gray quartzite angular waste debitage.

Along the eastern margin of the central rise of the sandstone outcrop an apparent feature (Feature 1) was identified. Feature 1 comprises an arc of sandstone clasts that appear to form a semi-oval perimeter with an opening to the north. The feature measures, to the approximate outside diameter, 2.1 meters east–west by 2.8 meters north–south. The feature relies on outcropping tilted red sandstone shingle that resembles an escarpment to form a backing to the westward/windward side of the enclosure, upon which tan Palm Springs/Borrego Formation sandstone clasts have been aligned. Additional Palm Springs/Borrego Formation clasts have been arrayed perpendicular or at an acute angle to the ground in a semicircular fashion. Given that the interior surface does not appear to have been cleared of the pebble debris that is observed in the same condition outside the enclosure, it is possible that the feature is a result of a fortuitous arrangement of sandstone clasts. No dietary refuse was identified within or adjacent to the feature as has been identified within similar sites elsewhere along the West Mesa. The site measures approximately 80 meters north–south by 50 meters east–west. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-08 is an isolated occurrence composed of a single white quartzite assayed cobble, and a single gray quartzite primary flake. The quartzite assayed cobble measures 105 mm by 101 mm by 62 mm. The isolate is located south of an unnamed tributary drainage north of Tule Wash on a north down sloping open flat. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-09 is an historic-period trash scatter likely associated with gravel operations indicated in the immediate area. Several dozer scars, windrows, and rock piles are distributed across the area, and a broad swath of land (approximately 2190 feet long by 125 feet wide) extending from the former runway alignment to south of Salton City Landfill Road has been cleared and graded. The trash scatter comprises four 12-ounce all steel beverage cans with "church-key" openings, and a half-pint amber colored glass liquor bottle. The bottle was manufactured by Anchor-Hocking under distiller code D-126, Liquor Bottle Permit Number 67, and date coded 1956. It is estimated that the attendant beverage cans date to the same period; by the early 1960s aluminum-topped steel beverage cans had been introduced and quickly saturated the market, replacing the all-steel beverage can. In addition to the trash scatter but without clear temporal association are fragments of heavy-duty wire rope likely used during the ground-clearing

efforts that remain visible on the landscape. The trash scatter measures approximately 15 meters north–south by 26 meters east–west. The wire rope items are located outside the project area and are not incorporated within the site boundary given their ambiguous association. The cleared swath resulted in the redirection of a seasonal stream to the south to cut along the eastern margin of the cleared area and bisect the site. A 1950 aerial photograph (UCSB 2023) does not appear to include evidence of the above-described ground disturbance, and the aforementioned seasonal drainage appears to follow its original course without deviation. The site is situated at the southern edge of an unnamed tributary drainage north of Tule Wash on a north down sloping and dissecting flat. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-10 is a prehistoric-period artifact scatter and probable deflated hearth feature, with at least 25 fire-affected Brawley sandstone and granitic clasts scattered across the central area of the site. Artifacts include two burned sandstone (Palm Springs/Borrego Formation) milling slab fragments; one granitic unifacial mano fragment; one gray quartzite bifacial and shouldered mano fragment; one gray quartzite hammerstone, one black, fine-grained metavolcanic chopper/hammerstone; one horse hoof scraper; and one gray quartzite secondary flake. The central focus of the site consists of a deflated hearth and tool array that is eroding into the adjacent seasonal stream (tributary to Tule Wash). At least one fire-affected rock (FAR) fragment and the quartzite mano fragment have been isolated from the site by seasonal cutting by the stream. The site is situated at the northern edge of an unnamed tributary drainage north of Tule Wash on a south down sloping and dissecting flat. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-12 is an isolated occurrence represented by a single dark gray quartzite primary flake. The flake was located near the base of a channel cut that forms one of the many branches of the minor tributaries in the area. An abandoned road cut is immediately proximate to the east. The area is generally heavily dissected by channels and cuts due to fluvial activity. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-13 is a prehistoric-period artifact scatter of several lithics and ceramic sherds. Artifacts include at least 17 Colorado Buff Ware ceramic sherds; one dark gray, one brown, and one tan quartzite assayed cobble; one tan quartzite assayed tabular cobble; one white quartzite bifacial core; and one black and one white quartzite secondary flake. A small cluster of cobbles is located near the center of the site, which has been located as the site datum. It is unclear if this arrangement is contemporaneous with the rest of the archaeological deposit. The site measures approximately 43 meters north–south by 35 meters east–west. The site is located on an open flat. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-14 is a small artifact scatter focused on mesquite bean processing. The site is composed of a Palm Springs/Borrego Formation sandstone unifacial milling slab (metate), one white quartzite bifacial mano fragment, and one reddish granitic unifacial mano fragment. The site is located adjacent to an over-mature mesquite cluster, which is included within the site boundary. The site measures approximately 13 meters north–south by 18 meters east–west. The deposit is located immediately south of a northern tributary to Surprise Wash, and the area is heavily dissected by channels and rills. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from

alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-15 is an isolated occurrence represented by a gray quartzite core and a white quartzite core/chopper/hammerstone. The gray cobble core is unifacial and multidirectional, while the white core/chopper/hammerstone exhibits varying degree of each attribute, beginning with minor bifacial core reduction and progressing through varying degrees of crushing and rounding of points and edges around the perimeter of the cobble. The isolate is on an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-16 is an isolated occurrence represented by a single gray quartzite secondary angular waste debitage. The flaking debris is on an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-17 is an isolated occurrence represented by a gray quartzite secondary flake and a gray quartzite primary flake. The two flakes are approximately 10.5 meters from each other on a slightly elevated rise within the dissecting open flat. The isolate is on an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-18 is a prehistoric-period sparse lithic scatter consisting of a gray quartzite secondary flake, a gray quartzite primary angular waste debitage, and a red-tan quartzite core fragment. The core fragment indicates bifacial reduction. The site is located on an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-19 is an isolated occurrence comprising a gray quartzite secondary flake and a gray quartzite primary flake. The two flakes are approximately 4.5 meters from each other and located an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-20 is a prehistoric-period sparse lithic scatter consisting of one gray quartzite unifacial core fragment, one gray and one white quartzite assayed cobble, one white quartzite primary flake, and one gray and one white quartzite secondary flake. The core fragment indicates unifacial reduction. Both the gray quartzite assayed cobble and core fragment are rounded cobbles, while the white quartzite assayed cobble is tabular in form. The site is on a slightly dissected open flat subjected to uncontrolled vehicle

traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-21 is an isolated occurrence comprising a yellowish white quartzite primary flake, and a white quartz primary flake. The two flakes are approximately 3 meters from each other and located on an open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-22 is a prehistoric-period sparse lithic scatter consisting of one brown, coarse-grained porphyritic metavolcanic assayed cobble; six gray quartzite primary and four secondary flakes; two white primary flakes; one tan quartzite primary flake; one red-tan quartzite primary flake; one black, fine-grained metavolcanic primary flake and one secondary flake; one gray, coarse-grained metavolcanic primary flake; and one white quartz secondary flake. The site is on a slightly dissected open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-23 is a prehistoric-period artifact scatter consisting of one black, fine-grained porphyritic metavolcanic unifacial, unimarginal core fragment; one gray quartzite unifacial core; one white quartzite secondary flake; and one Tumco Buff Ware body sherd. The site is on a slightly dissected open flat subjected to uncontrolled vehicle traffic. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-24 is an isolated occurrence comprising a gray quartzite primary flake and a tan quartzite primary flake. The two flakes are approximately 5.5 meters from each other on the south bank of a small, northeast-trending, unnamed seasonal drainage supporting a small tamarisk grove. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-25 is an isolated occurrence represented by a single white quartzite primary flake. The isolate is located at the edge of a small berm within a down cut path used to form an adjacent levee. The area is generally an open flat subjected to some dissection due to minor seasonal drainages, as well as the creation of the water diversion levee immediately to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-26 is a prehistoric-period sparse lithic scatter consisting of one gray quartzite assayed cobble, one white quartz secondary flake, one pink quartzite primary flake, one white quartzite primary flake, and one tan quartzite angular waste debitage. The site is on a slightly dissected open flat subjected to road

grading along the west and south of the site, as well as the creation of the northern runway apron of the Salton Sea Airport also to the south. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-27 is an isolated occurrence represented by a red microcrystalline quartz (chert) unifacial scraper and a gray quartzite primary flake. The isolate is on a slightly dissected open flat subjected to road grading along the west and south of the site, as well as the creation of the northern runway apron of the Salton Sea Airport also to the south. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-28 is an isolated occurrence represented by a white quartzite primary flake and a gray quartzite secondary flake. The two flakes are approximately 19 meters from each other on the open flat south of the southern runway apron of the Salton Sea Airport. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-29 is a prehistoric-period sparse lithic scatter consisting of one red quartzite unifacial, unidirectional core/chopper; one white quartzite assayed cobble; one gray quartzite primary flake; and one white quartz secondary flake. The quartzite core exhibits a small degree of bifacial faceting and crushing along a portion of the flaking margin. The site is located on the open flat between two seasonal drainages draining to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-30 is a pre-/protohistoric ceramic scatter of three Parker or Topoc Buff Ware sherds and a white quartzite secondary flake. The four artifacts were identified across a linear array of approximately 8 meters. All sherds were heavily weathered; as such, the necessary distinctions used to identify Topoc from Parker were not present. The site is located on the northern margin of a well-defined seasonal drainage emptying to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-31 is an isolated occurrence represented by a red-gray quartzite unifacial, unidirectional scraper. The isolate is located on the open flat between two seasonal drainages draining to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-32 is a pre-/protohistoric artifact scatter with two hearth features. Artifacts appear to be directly associated with the identified features, and outside their immediate area. Feature 1 includes a diorite unifacial mano fragment, as well as several pieces of fire-affected rock. In addition to several fire-affected rocks, Feature 2 includes one dark gray quartzite bifacial multimarginal chopper/hammerstone; one gray and one white quartzite bifacial, unimarginal chopper/hammerstone; and a burned Palm Springs/Borrego Formation sandstone flake. Artifacts outside the immediate area of the features include a dark gray volcanic assayed cobble; a white quartzite unifacial, multidirectional core; one white and one tan quartzite secondary flake; a rose quartz primary flake; and a red-gray secondary angular waste

debitage. The white quartzite secondary flake was less than 2 centimeters in length or width, suggesting a later stage lithic reduction sequence not observed elsewhere within the survey area. Both hearths are located along an eroding seasonal drainage bank edge, and the features are deflating into the dissecting channels of the drainage margin. The outlying artifacts are on a dissected open flat overlooking the seasonal drainage. The site is located on the northern margin of a well-defined seasonal drainage emptying to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-33 is an isolated occurrence comprising a single white quartzite assayed cobble. The isolate is located on the open flat south of the southern runway apron of the Salton Sea Airport. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-34 is a prehistoric-period sparse lithic scatter consisting of one gray quartzite bifacial, unimarginal core, one white quartzite assayed cobble, and one gray and one white quartzite primary flake. The site is located on the southern margin of a well-defined seasonal drainage emptying to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-35 is an isolated occurrence comprising a single white quartzite primary flake. The isolate is located on the open flat between two seasonal drainages discharging to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-36 is a prehistoric-period sparse lithic scatter consisting of one gray tabular quartzite bifacial core, two white and one tan quartzite primary flakes, and one gray quartzite secondary angular waste debitage. The site is located on the open flat between two seasonal drainages discharging to Tule Wash. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-37 is a prehistoric-period lithic scatter consisting of one gray and one white assayed quartzite cobble, one gray quartzite unifacial, multimarginal core, three gray and one white quartzite primary flakes, one gray quartzite and one black volcanic secondary flake, one gray quartzite primary angular waste debitage, and one burned, pecked, tan Palm Springs/Borrego Formation sandstone unifacial milling slab (metate). The site is located on the northern margin of a well-defined seasonal drainage emptying to Tule Wash. The diffuse site is cut by several surface meandering rills and channels resulting in several areas of higher relief where artifacts are located. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-38 is a prehistoric-period artifact scatter consisting of one white quartzite assayed cobble (101 mm by 90 mm by 50 mm); one gray, fine-grained metavolcanic unifacial, unimarginal core (69 mm by 62 mm by 33 mm); one gray quartzite unifacial core fragment (70 mm by 82 mm by 35 mm); one gray

quartzite unifacial, unimarginal core (54 mm by 42 mm by 22 mm); one gray quartzite unifacial, unimarginal core fragment (66 mm by 56 mm by 31 mm); one white quartzite unifacial core fragment (111 mm by 85 mm by 54); three white quartzite primary flakes; two gray quartzite primary and five secondary flakes; one black, fine-grained metavolcanic primary and one secondary flake; one gray, fine-grained metavolcanic secondary flake; one banded gray quartzite primary flake; and one wonderstone secondary flake. The site is located approximately 20 meters south of the southern margin of a well-defined seasonal drainage emptying to Tule Wash. The diffuse site is on an open flat with a thin sheet of exposed sandstone outcrop traversing the center of the deposit. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-40 is an isolated occurrence comprising a single gray quartzite primary flake. The flake is located on an upland like area that is heavily dissected and draining to an unnamed seasonal drainage supporting a small tamarisk grove to the north and continuing to Surprise Wash to the south. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

CGI-21397-41 is an isolated occurrence comprising a gray quartzite primary flake and a tan quartzite primary flake. The two flakes are approximately 5.5 meters from each other on the south bank of a small northeast-trending unnamed seasonal drainage supporting a small tamarisk grove. A water diversion levee has been erected to the west, and a portion of the Salton Sea airpark subdivision is to the east. Sediments are part of the Palm Springs/Borrego Formation and include sandy silt, gravel, and small cobbles derived from alluvium and sandy aeolian deposits with a 0–3 percent slope. Ephemeral drainages are located throughout the terrain.

In addition to the newly identified resources described above, three previously identified prehistoric-period archaeological sites were relocated and found to have additional materials located outside their previously recorded boundaries. Each of these resources will receive update sheets for files housed at the Information Center.

POWER Engineers (POWER) identified and recorded the three sites that extend into the Project site as part of a 2017 survey (POWER 2019). Chambers Group relocated each of these resources, given that they extend into the Project site, and identified additional material at each.

P-13-017175 is described as a sparse prehistoric lithic scatter comprising 22 flaked lithic tools, over 150 pieces of debitage, and a sandstone metate fragment (POWER 2018a). This site is located southeast of the Project site and minimally encroaches within. Chambers Group identified two additional resources near the northwest-most aspect of the site. These include a single, weathered, gray quartzite assayed cobble and a single gray quartzite primary flake. The assayed cobble was located farthest from the previously recorded site boundary at 28 meters, with the flake 7 meters away from the boundary. The addition of these two items does result in extending the site into the Project site but does not alter the understanding or the significance of the site.

P-13-017176 is described as a sparse prehistoric lithic scatter comprising 8 flaked lithic tools and 37 pieces of debitage. Of note are several flakes that exhibit bipolar reduction technique (POWER 2017a). This site is located northeast of the Salton Sea Airport runway and minimally encroaches within the Project site.

Chambers Group identified 7 additional artifacts near the northwest-most aspect of the site. These include a black andesite chopper; a gray quartzite multimarginal hammerstone; a gray quartzite unifacial, multimarginal core; an edge-modified gray quartzite cobble clast; and three gray quartzite secondary flakes. The edge-modified cobble clast was located farthest from the previously recorded site boundary at 28 meters, with the black andesite chopper 13 meters away from the boundary. The addition of these seven items does result in extending the site into the Project site but does not alter the understanding or the significance of the site.

P-13-017184 is described as a very small prehistoric lithic scatter of two tested quartzite cobbles and three pieces of debitage (POWER 2017b). This site is located northwest of the Salton Sea Airport runway and is largely within the Project site. Chambers Group identified six additional artifacts inside and outside of the site boundary. These include a gray quartzite assayed cobble in the vicinity of previously recorded "Tool 2" (which Chambers Group relocated and identified as white quartzite assayed cobble); a gray quartzite cobble scraper and a gray quartzite secondary flake in the vicinity of "Tool 1;" a white quartzite multimarginal, multidirectional core 17 meters southeast of the site boundary; a gray quartzite primary flake 16 meters northwest of the site boundary; and a gray quartzite assayed cobble 2 meters northwest of the site boundary. The addition of these six items does result in extending the site into the Project site but does not alter the understanding or the significance of the site.

In addition to the previously recorded sites above, a previously identified isolate, P-13-017178—a gray quartzite primary flake—was relocated during the survey. As per protocol, Chambers Group archaeologists surveyed the immediate area of the isolate and determined that it was close to other materials identified at CGI-21397-07. The previously recorded isolate is consistent with the other resources identified at the site. Not including the previously recorded isolate within the site boundary would not alter the understanding or significance of the newly recorded site.

POWER also updated the previously identified P-13-014306, recording the road alignment as traversing the Project site as it extends from State Route 86 (POWER 2016). Chambers Group verified the aerial imagery (UCSB 2023) that locates the continuation of the previously recorded road segment P-13-014306, as recorded by POWER. The Information Center provided this road alignment as recorded up to the southern edge of the Salton City Landfill Road, south of the Project site. Aerial data, however, indicate that the alignment transects the Project site and terminates at State Route 86. The alignment is visible on a 1950 aerial photograph (UCSB 2023) and indicates a continuous path from State Route 86 through the Project site, and continuing along the recorded alignment. Similarly, the Update P-13-14306 site form completed by POWER illustrates this complete alignment. It is not known why the Information Center does not have a complete alignment in their GIS files (the subsequent update by California Department of Parks and Recreation (DPR) document this road network only to the junction with the Salton City Landfill Road). The present condition of the section of the road passing through the Project site reflects, subsequent to the 1950 aerial, the construction of the Salton Sea Airport and support systems, the construction of water control levees, gravel mining operations, and natural erosion. Segments of the road are identified on either side of the Salton Sea airfield; no trace of the road was observed within the airfield footprint. The road is not maintained and, while generally passible, is subject to erosion, and its integrity within the Project site has been diminished. No associated military components were identified in association with the road alignment. DPR has noted that this road network is associated with other documented resources not located within the Project site.

Other previously recorded isolates—P-13-016880, -017178, -017188, -017495, and -017496, and site P-13-006429—were relocated and found in generally the same condition as previously described. No

additional items or features were noted, and no significant changes were observed. These previously documented isolates also received status updates filed with the Information Center.

SECTION 7.0 – EVALUATION

Previous studies have resulted in the identification of 15 resources (nine isolates and six sites) within the Project site. Chambers Group documented a total of 17 newly identified isolates and 21 archaeological sites. These resources are illustrated in Table 4, below, along with a recommended evaluation status. All resources discussed in this section are depicted on Figure 2, located in Appendix B.

Under CEQA, isolated artifacts are not likely to provide sufficient information to permit them to be eligible historic resources. Chambers Group, therefore, recommends all previously and newly identified isolated artifacts with the Project site as not eligible for inclusion on the CHRH or the NRHP under any criteria. This recommendation does not preclude a lead agency from determining any one of these items as an historical resource as defined in PRC § 5020.1(j) or § 5024.1, or determining them a "tribal cultural resource" as defined in PRC § 21074.

Chambers Group recommends that CGI-21397-07, -10, -13, -14, -32, and -37 are eligible for inclusion on the CRHR and the NRHP under Criterion 4/D because they are likely to be capable of yielding information important in prehistory or history through analysis of these data through the research issues documented above. Each of these sites may be able to provide data required to answer questions related to site function, temporal sequence, or period of occupation through analysis of radiocarbon data; subsistence through analysis of tools and potential residues located on non-weathered surfaces; and trade and exchange through analysis of ceramics or locally rare lithic materials.

Chambers Group recommends that CGI-21397-01, -02, -03, -06, -09, -18, -20, -22, -23, -26, -29, -30, -34, -36, and -38 are not eligible for inclusion on the CRHR or the NRHP under any criteria because none of these resources are likely to be capable of yielding information important in prehistory or history as they lack data necessary to answer questions related to the research issues documented above. This recommendation does not preclude a lead agency from determining any one of these items as an historical resource as defined in PRC § 5020.1(j) or § 5024.1, or determining them a "tribal cultural resource" as defined in PRC § 21074.

Previously, POWER recommended P-13-006249 as eligible for inclusion on the "NRHP and the CRHR under Criterion D/4 because the integrity of the site is considered fair and additional buried features may not yet have been exposed to view by natural erosion" (POWER 2018b). POWER stated that the site appeared to be eligible on the basis that site integrity was considered fair. Site integrity is not one of the four criteria by which cultural resources are evaluated, but rather defines certain qualities about the resource and its relationship to the criteria that may qualify the resource for inclusion on the CRHR or the NRHP. POWER also noted that "The original site boundary from 1989 was checked and no artifacts are located inside this area. The site map represents all three version of the boundary since artifacts could have been lost between 1989 and 2016/7." This suggests the probability that data has been lost. This loss then suggests that there is a potential for loss of integrity, conflicting with POWER's prior statement. Last, POWER states, "Finally, the site has yielded or may be likely to yield information important to the prehistory of the region." In neither the report (POWER 2019) or the attendant site form (POWER 2018b) did the authors demonstrate which data has yielded important information or how data from the site may in the future provide important information, apart from speculating that "additional buried features may not yet have been exposed to view by natural erosion." It is also noted that the POWER-prepared site form specifically states that no features were observed. Given that it is a sparse artifact scatter of a limited number of items, and no identified features, Chambers Group does not recommend P-13-006249 eligible for inclusion on either the CRHR or the NRHP. The data potential from within this site can be exhausted

through commonly practiced site-recording techniques, including spatial recording, and individual artifact measurement analysis.

Table 4: Recommended Eligibility of Cultural Resources Within Project Site

Resource Name (Temporary)	Trinomial Number	Age	Description	Recommended Evaluation
CGI-21397-01		Historic	Feature: Cairn	Not eligible
CGI-21397-02		Historic	Site: Camp site	Not eligible
CGI-21397-03		Historic	Feature: Cairn	Not eligible
CGI-21397-04		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-06		Historic	Site: Trash scatter; 1971	Not eligible
CGI-21397-07		Prehistoric	Site: Lithic scatter; possible habitation	Eligible, Criterion 4/D
CGI-21397-08		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-09		Historic	Site: Trash scatter	Not eligible
CGI-21397-10		Prehistoric	Site: Habitation	Eligible, Criterion 4/D
CGI-21397-11		Prehistoric	Incorporated into P-13-017184	N/A
CGI-21397-12		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-13		Prehistoric	Site: Artifact scatter	Eligible, Criterion 4/D
CGI-21397-14		Prehistoric	Site: Food processing	Eligible, Criterion 4/D
CGI-21397-15		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-16		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-17		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-18		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-19		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-20		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-21		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-22		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-23		Prehistoric	Site: Artifact scatter	Not eligible
CGI-21397-24		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-25		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-26		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-27		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-28		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-29		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-30		Prehistoric	Site: Artifact scatter	Not eligible
CGI-21397-31		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-32		Prehistoric	Site: Habitation	Eligible, Criterion 4/D
CGI-21397-33		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-34		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-35		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-36		Prehistoric	Site: Lithic scatter	Not eligible
CGI-21397-37		Prehistoric	Site: Artifact scatter	Eligible, Criterion 4/D
CGI-21397-38		Prehistoric	Site: Artifact scatter	Not eligible
CGI-21397-39		Prehistoric	Incorporated into P-13-017175	N/A

Table 4: Recommended Eligibility of Cultural Resources Within Project Site

Resource Name (Temporary)	Trinomial Number	Age	Description	Recommended Evaluation
CGI-21397-40		Prehistoric	Isolate: Lithic	Not eligible
CGI-21397-41		Prehistoric	Isolate: Lithic	Not eligible
P-13-006249	CA-IMP-006249	Prehistoric	Site: Artifact scatter	Not Eligible
P-13-014306		Historic	Linear Site: Road	Undetermined
P-13-015081	CA-IMP-012462	Prehistoric	Site: Lithic scatter	Not eligible
P-13-016880		Historic	Isolate: Can	Not eligible
P-13-016885		Historic	Site: Fence; infrastructure	Undetermined
P-13-016887		Prehistoric	Isolate: Lithic	Not eligible
P-13-017175	CA-IMP-012790	Prehistoric	Site: Lithic scatter	Eligible, Criterion 4/D
P-13-017176	CA-IMP-012791	Prehistoric	Site: Lithic scatter	Eligible, Criterion 4/D
P-13-017178		Prehistoric	Isolate: Lithic	Not eligible
P-13-017179		Prehistoric	Isolate: Lithic	Not eligible
P-13-017184	CA-IMP-012797	Prehistoric	Site: Lithic scatter	Not eligible
P-13-017187		Prehistoric	Isolate: Lithic	Not eligible
P-13-017188		Prehistoric	Isolate: Lithic	Not eligible
P-13-017494		Prehistoric	Isolate: Lithic	Not eligible
P-13-017495		Prehistoric	Isolate: Lithic	Not eligible
P-13-017496		Prehistoric	Isolate: Lithic	Not eligible

P-13-014306 is a road network that appears to have been constructed for military training exercises during World War Two. The site was first recorded by DPR in 2012, was updated in 2016 by POWER, and updated again by DPR in 2020. Neither DPR recordings proffered an eligibility status for this resource; POWER recommended an eligibility under Criterion D/4 on the basis that "unrecorded buried historic features may exist that have not been exposed to view by natural erosion" and because "the site has yielded or may be likely to yield information important to the history of the region." Chambers Group identified this resource as traversing the Project site, confirming DPR and POWER's earlier documentation; neither, however, recorded the resource north of the Salton City Landfill Road. The road within the Project site, however, is increasingly in disrepair and has been bisected by stream cuts and levee construction, as well as the construction of the Salton Sea Airport. While largely passible, the roadbed is not maintained, and its integrity has been diminished, in particular in its ability to demonstrate feeling and association with its military purpose. Chambers Group does not agree with the assessment by POWER; however, Chambers Group is unable to provide a conclusive assessment regarding the portion of the road within the Project site.

P-13-016885 is an isolated item of industrial infrastructure. The data tag noted in the site form indicates that this is a Tecumseh Hermetic Compressor (model number AVA5546EXN) from their AV and AG series. This is a single phase, 208–230 Volt, 60 Hz compressor capable of producing 45,710 British Thermal Units per hour (BTUH) (Southern Pipe 2023). Little else is known about this location, and Chambers Group is unable to provide an adequate recommendation. The area where the resource was located by the SCIC GIS database was surveyed; however, this particular location maps to the existing unnamed road that approximates the western boundary of the Project site near its intersection with the Salton City Landfill

Road. Based on the photograph within the site form, the resource is likely several meters west of the Project boundary, and outside the Project site.

POWER Engineers identified P-13-017175 as a sparse lithic scatter of at least 22 tools and 150 pieces of debitage, and a sandstone metate fragment. Chambers Group identified additional materials within the Project site outside the previously recorded boundary, adding one assayed cobble and one flake to the tally. POWER Engineers recommended the site eligible for the CRHR and the NRHP under Criterion 4/D. Chambers Group concurs with this recommendation because the site appears to be capable of meeting the qualifications of a number of the research issues outlined above. It is recommended that if the site cannot be avoided, a testing and treatment plan should be prepared and implemented.

POWER Engineers identified P-13-017176 as a sparse lithic scatter of at least 8 tools and 37 flakes. Chambers Group identified additional materials within the Project site outside the previously recorded boundary, adding 4 tools and 3 flakes to the tally. POWER noted that all reduction stages are represented in the flake debris identified, and several are noted to be bipolar. The breadth of reduction types and rarely utilized strategies (e.g., bipolar), meets the qualifications for a number of the research issues outlined above. Chambers Group recommends that the site is eligible for the CRHR and the NRHP under Criterion 4/D and further recommends that the site be avoided. If the site cannot be avoided, a testing and treatment plan should be prepared and implemented.

POWER Engineers identified P-13-017184 as a very small prehistoric lithic scatter consisting of two tested quartzite cobbles and three pieces of debitage. Chambers Group identified additional materials within the Project site both inside and outside the previously recorded boundary, adding two tools, two assayed cobbles, and two flakes to the tally. POWER stated that the site appeared to be eligible for the NRHP and the CRHR under Criterion D/4 on the basis that "the integrity of the site is considered good, and the potential for additional significant data of interest to local tribes and regional history is good. Finally, the site has yielded or may be likely to yield information important to the prehistory of the region." As with P-13-016885 above, neither of the first two reasons meet the criteria of eligibility for inclusion on the registers. None of the factors associated with Criteria A, B, or C are demonstrated, or applied, and a site's ability to add data of interest to a tribe is not an eligible pathway for inclusion on a register. Last, it has not been demonstrated which data has yielded or is likely to yield information important to the prehistory of the region. Given that it is a sparse artifact scatter of a limited number of non-unique items, Chambers Group does not recommend P-13-017184 eligible for inclusion on either the CRHR or the NRHP. The data potential from within this site can be exhausted through commonly practiced site-recording techniques, including spatial recording, and individual artifact measurement analysis.

SECTION 8.0 – SUMMARY AND RECOMMENDATIONS

8.1 SUMMARY

Chambers Group conducted an archaeological investigation within the Project site in January 2023. The work was performed under Chambers Group's contract with Imperial County Planning and Development Services Department. The central goal of the investigations was to gather and analyze information needed to determine if the Project, as currently proposed, would impact known cultural resources.

The SDNHM consulted their files and determined that no recorded fossil localities have been identified within a one-mile radius of the Project site. Additionally, no paleontological materials were observed during the survey. The SDNHM, however, notes that sensitive late Pleistocene- to Holocene-age Lake Cahuilla Beds exist within the proposed Project, and subsurface ground-disturbing activities have the potential to impact sensitive paleontological resources.

Archival record searches, background studies, and an intensive pedestrian survey of the Project site were conducted as part of this cultural resource study. The cultural record search identified 10 cultural resource studies and 15 archaeological resources within the Project site. The survey yielded 5 newly identified historic-period resources, 16 newly identified prehistoric-period resources, and 17 newly identified isolated occurrences within the Project site. One previously identified isolate (P-13-017178) was relocated and incorporated into the newly identified site CGI-21397-07. Previously identified sites P-13-017175, P-13-017176, and P-13-017184 were also relocated, and additional materials were identified and incorporated in site updates. In addition, most previously identified resources were relocated but not found to include additional materials (P-13-006249, P-13-014306, P-13-015081, P-13-016880, P-13-017188, P-13-017495, and P-13-017496); those items not relocated were either not present at the location recorded (P-13-016885 and P-13-016887), or not encountered during survey (P-13-017179, P-13-017187, and P-13-017494).

8.2 RECOMMENDATIONS

8.2.1 Paleontological

Based on a records search requested from the SDNHM the Project site has paleontological sensitivity. It is recommended that a Qualified Paleontologist is retained, and a paleontological monitor is on-site during construction actions that may encounter sensitive resource-bearing deposits (MM PALEO 1).

Prior to construction activity, a Qualified Paleontologist should prepare a Paleontological Resource Mitigation Plan (PRMP) to be implemented during ground-disturbing activity for the proposed Project. This program should outline the procedures for paleontological monitoring, including extent and duration; protocols for salvage and preparation of fossils; and the requirements for a final mitigation and monitoring report (MM PALEO 1). A qualified and trained paleontological monitor should be present on site to observe all earth-disturbing activities in previously undisturbed geologic deposits determined to have a high paleontological sensitivity (i.e., Lake Cahuilla Beds) (MM PALEO 3). Monitoring should consist of the visual inspection of excavated or graded areas and trench sidewalls. Screening of sedimentary matrix should be conducted because some invertebrates may not be visible to the naked eye. These, and additional requirements are outlined in the proposed mitigation measures, below (MM PALEO 1 through MM PALEO 5).

MM PALEO-1 The Applicant shall retain the services of a Qualified Paleontologist and require that all initial ground-disturbing work be monitored by someone trained in fossil identification in monitoring contexts. The Qualified Paleontologist shall prepare a Paleontological Resource Mitigation Plan to be implemented during ground-disturbing activity for the proposed Project. This program should outline the procedures for paleontological monitoring, including extent and duration; protocols for salvage and preparation of fossils; and the requirements for a final mitigation and monitoring report. The Qualified Paleontologist and a paleontological monitor shall be present at the Project construction-phase kickoff meeting.

MM PALEO-2 Prior to commencing construction activities and thus prior to any ground disturbance in the Proposed Project site, the Qualified Paleontologist and paleontological monitor shall conduct initial WEAP training to all construction personnel, including supervisors, present at the start of the Project construction work phase, for which the Applicant, or their designated Contractor, and all subcontractors shall make their personnel available. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to paleontological resources and maintain environmental compliance, and shall be performed periodically for new personnel coming on to the Project as needed.

MM PALEO-3 The Applicant, or their designated Contractor, shall provide the Qualified Paleontologist with a schedule of initial potential ground-disturbing activities. A minimum of 48 hours will be provided to the consultant prior to the commencement of any initial ground-disturbing activities, such as vegetation grubbing or clearing, grading, trenching, or mass excavation.

As detailed in the schedule provided, a paleontological monitor shall be present on-site at the commencement of ground-disturbing activities related to the Project. The monitor, in consultation with the Qualified Paleontologist, shall observe initial ground-disturbing activities and, as they proceed, make adjustments to the number of monitors as needed to provide adequate observation and oversight. All monitors will have stop-work authority to allow for recordation and evaluation of finds during construction. The monitor will maintain a daily record of observations as an ongoing reference resource and to provide a resource for final reporting upon completion of the Project.

The Qualified Paleontologist, paleontological monitor, and the Applicant, or their designated Contractor, and subcontractors shall maintain a line of communication regarding schedule and activity such that the monitor is aware of all ground-disturbing activities in advance to provide appropriate oversight.

MM-PALEO-4 If paleontological resources are discovered, construction shall be halted within 50 feet of any paleontological finds and shall not resume until the Qualified Paleontologist can determine the significance of the find and/or the find has been fully investigated, documented, and cleared.

MM PALEO-5 At the completion of all ground-disturbing activities, the Qualified Paleontologist shall prepare a Paleontological Resources Monitoring Report summarizing all monitoring efforts and observations, as performed, and any and all paleontological finds, as well as

providing follow-up reports of any finds to the preferred paleontological repository, as required.

8.2.2 Cultural

The records search and archaeological survey resulted in the identification of 118 resources within 1/4-mile radius of the Project site. In addition to the 15 previously recorded sites and isolates within the Project site, Chambers Group identified a further forty new sites and isolates during the survey. Furthermore, a previously recorded resource located outside the Project site was found to extend beyond its prior recorded limits and transect the Project site.

The preferred mitigation is avoidance of significant cultural resources is through project design. Resources found to be not significant will not require mitigation. If avoidance of direct impacts to resources CGI-21397-07, -10, -13, -14, -32, -37, and P-13-017175 and -017176, or other previously unknown eligible or potentially eligible resource(s), is not feasible, the County will ensure that potentially impacted archaeological sites are assessed for significance, as defined by PRC § 21083.2 or CEQA Guidelines § 15064.5 et. seq., through implementation of Phase II investigations. Should Phase II testing of these, or any previously unknown archaeological site, exhaust the data potential of the site, Project impacts will be reduced to a less than significant level by adopting the recommended mitigation measures below (MM CUL-1 through MM CUL-5).

Impacts to an archaeological site found to be significant under CRHR Criterion 4 may be mitigated through a Phase III data recovery program. For such a site, prior to any ground-disturbing activities, a detailed archaeological treatment plan shall be prepared and implemented by a Qualified Archaeologist. Data recovery investigations shall be conducted in accordance with the archaeological treatment plan to ensure collection of sufficient information to address archaeological and historical research questions, and results shall be presented in a technical report (or reports) describing field methods, materials collected, and conclusions. Additional testing and/or data recovery phases may involve additional excavation and/or more detailed recordation of resources or more comprehensive archival research. Any cultural material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection. If a resource is found to be significant under CRHR Criterion 1, 2, or 3, alternative mitigation measures may be developed by the Qualified Archaeologist, in consultation with the County.

Prior to permitting ground-disturbing work within the Project site it is recommended that the County, under AB 52, consult with all requesting tribes to identify any concerns they may have regarding the Project. No significant impacts to cultural or paleontological resources are anticipated as a result of the current undertaking if recommended eligible resources are avoided, and the recommendations included below are implemented. It is recommended that a tribal monitor be present during ground-disturbing activities associated with the Project. No specific mitigation measures regarding tribal monitoring are offered at this time; it is recommended that such measures, if requested by the tribes, be developed following consultation.

Per CEQA Guidelines, the Project should be designed to avoid impacts to significant cultural resources within the Project site whenever feasible. Given that Chambers Group did identify new cultural resources during the survey of the Project site, the following mitigation measures are recommended to be implemented as part of Project approval to ensure that potential impacts to cultural resources are less than significant.

MM CUL-1 A Qualified Archaeologist, meeting the Secretary of the Interior Standards or County standards, whichever is greater, shall be retained to prepare a Cultural Resources Management Plan (CRMP) in advance of project construction. The CRMP shall be prepared to include a Phase II significance identification and treatment plan, per PRC § 21083.2 and CEQA Guidelines § 15064.5 et. seq., to evaluate all cultural resources that cannot be avoided. For those resources that are identified as a significant cultural resource through the Phase II evaluation, and which cannot be avoided, a Phase III data recovery program shall be prepared. The data recovery plan shall make provisions for adequately recovering the scientifically consequential information from and about the resource, and shall be prepared and adopted prior to any excavation being undertaken. Following the data recovery plan, the Qualified Archaeologist shall prepare a Mitigation Monitoring Reporting Plan.

MM CUL-2 All initial ground-disturbing work within 100 feet (30 meters) of all previously identified significant cultural resources shall be monitored by an archaeological specialist (archaeological monitor) proficient in artifact and feature identification in monitoring contexts. Prior to initial ground-disturbing work the Qualified Archaeologist, and/or archaeological monitor, shall be present at the Project construction-phase kickoff meeting. The Qualified Archaeologist, and/or archaeological monitor, shall conduct initial Worker Environmental Awareness Program (WEAP) training to all construction personnel, including supervisors, present at the start of the Project construction work phase, for which the Applicant, or their designated Contractor, and all subcontractors shall make their personnel available. A tribal monitor, if required following consultation with the County, shall be provided an opportunity to attend the pre-construction briefing, if requested. This WEAP training will educate construction personnel on how to work with the monitor(s) to identify and minimize impacts to archaeological resources and maintain environmental compliance. This WEAP training will educate the monitor(s) of construction procedures to avoid construction-related injury or harm. This training may be performed periodically, such as for new personnel coming on to the Project as needed.

MM CUL-3 The Applicant, or their designated Contractor, shall provide the Qualified Archaeologist with a schedule of initial potential ground-disturbing activities. A minimum of 48 hours will be provided to the Qualified Archaeologist prior to the commencement of any initial ground-disturbing activities, such as vegetation grubbing or clearing, grading, trenching, or mass excavation.

The archaeological monitor, under the direction of the Qualified Archaeologist, shall observe initial ground-disturbing activities and, based on the initial observations and in consultation with the Qualified Archaeologist, may adjust the monitoring approach as needed to provide adequate observation and oversight. All on-site monitors will have authority to temporarily halt and/or redirect construction to allow for recordation and evaluation of any and all finds. The archaeological monitor will maintain a daily record of observations to serve as an ongoing reference resource and to provide a resource for final reporting upon completion of the Project.

The Qualified Archaeologist and the Applicant, or their designated Contractor and subcontractors, shall maintain a line of communication regarding schedule and activity

such that the archaeological monitor is aware of all ground-disturbing activities in advance to provide appropriate oversight.

MM CUL-4 In the event of the discovery of previously unidentified cultural resources, the Applicant/Contractor shall immediately cease all work activities within an area of not less than 100 feet (30 meters) of the discovery. The Applicant-retained Qualified Archaeologist shall be contacted to evaluate the significance of the resource(s) prior to resuming any construction-related activities in the vicinity of the find. If the Qualified Archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the County shall implement an archaeological data recovery program.

Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act, the California Native American Graves Protection and Repatriation Act, HSC § 7050.5, CEQA § 15064.5, or PRC § 5097.98, the discovery of any cultural resource within the Project area shall not be grounds for a Project-wide "stop-work" notice or otherwise interfere with the Project's continuation except as set forth in this paragraph. Additionally, all consulting Native American tribal groups that requested notification of any unanticipated discovery of archaeological resources on the Project shall be notified appropriately. If a discovery results in the identification of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act or the California Native American Graves Protection and Repatriation Act, the Applicant/Contractor shall immediately cease all work activities within an area of not less than 100 feet (30 meters) of the discovery.

MM-CUL-5 At the completion of all ground-disturbing activities, the Qualified Archaeologist shall prepare an Archaeological Resources Monitoring Report summarizing all monitoring efforts and observations, as performed, and any and all prehistoric or historic archaeological finds, as well as providing follow-up reports of any finds to the South Coastal Information Center (SCIC), as required.

HUMAN REMAINS—LEGAL REQUIREMENTS In the event that human remains are discovered during ground-disturbing activities, the Proposed Project shall comply with California HSC § 7050.5, CEQA § 15064.5, and California PRC § 5097.98 (NPS 1983). If human remains are found during ground-disturbing activities, State of California HSC § 7050.5 states that no further disturbance shall occur until the County Medical Examiner–Coroner has made a determination of origin and disposition pursuant to PRC § 5097.98. In the event of an unanticipated discovery of human remains, the County Medical Examiner–Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the Medical Examiner–Coroner shall notify the NAHC, which shall identify and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials (NPS 1983).

SECTION 9.0 – SITE PHOTOGRAPHS

Photograph 1:
CGI-21397-01
Photo Accession:
20230124_135108
View: East

Photograph 2:
CGI-21397-02
Photo Accession:
20230124_141213
View: East

Photograph 3:
CGI-21397-03
Photo Accession:
20230124_142411
View: East

Photograph 4:
CGI-21397-04
Photo Accession:
PXL_20230131_16
5702317
View: East

Photograph 5:
CGI-21397-06
Photo Accession:
Photo 1
View: South

Photograph 6:
CGI-21397-07
Photo Accession:
PXL_20230127_17
4120054
View: North

Photograph 7:
CGI-21397-08
Photo Accession:
Photo 1
View: North

Photograph 8:
CGI-21397-09
Photo Accession:
Photo 3
View: West

Photograph 9:
CGI-21397-10
Photo Accession:
PXL_20230127_20
0304702
View: North

Photograph 10:
CGI-21397-12
Photo Accession:
Photo 1
View: North

Photograph 11:
CGI-21397-13
Photo Accession:
PXL_20230124_20
5006818
View: Northeast

Photograph 12:
CGI-21397-14
Photo Accession:
PXL_20230125_17
0134211
View: East

Photograph 13:
CGI-21397-15
Photo Accession:
PXL_20230125_17
5714182
View: West

Photograph 14:
CGI-21397-16
Photo Accession:
Photo 1

Photograph 15:
CGI-21397-17
Photo Accession:
PXL_20230125_184243056
View: Southwest

Photograph 16:
CGI-21397-18
Photo Accession:
PXL_20230125_191120908
View: West-southwest

Photograph 17:
CGI-21397-19
Photo Accession:
PXL_20230125_193402513
View: West-southwest

Photograph 18:
CGI-21397-20
Photo Accession:
PXL_20230125_205857831
View: West-southwest

Photograph 19:
CGI-21397-21
Photo Accession:
PXL_20230125_21
1613223
View: North

Photograph 20:
CGI-21397-22
Photo Accession:
PXL_20230125_22
3917274-
_223924851
View: Southwest-
Northwest

Photograph 21:
CGI-21397-23
Photo Accession:
PXL_20230125_23
0832828
View: Southwest

Photograph 22:
CGI-21397-24
Photo Accession:
PXL_20230125_23
4203611
View: North

Photograph 23:
CGI-21397-25
Photo Accession:
PXL_20230126_17
5847026
View: South

Photograph 24:
CGI-21397-26
Photo Accession:
PXL_20230126_17
5847026
View: North

Photograph 25:
CGI-21397-27
Photo Accession:
Photo 1

Photograph 26:
CGI-21397-28
Photo Accession:
PXL_20230127_19
2401488
View: North

Photograph 27:
CGI-21397-29
Photo Accession:
PXL_20230127_21
1159776
View: North

Photograph 28:
CGI-21397-30
Photo Accession:
Photo 2
View: Northeast

Photograph 29:
CGI-21397-31
Photo Accession:
Photo 2
View: North

Photograph 30:
CGI-21397-32
Photo Accession:
PXL_20230131_23
4626626
View: East

Photograph 31:
CGI-21397-33
Photo Accession:
PXL_20230127_23
2443970
View: North

Photograph 32:
CGI-21397-34
Photo Accession:
PXL_20230127_22
3100491
View: Northeast

Photograph 33:
CGI-21397-35
Photo Accession:
PXL_20230127_23
1122435
View: North

Photograph 34:
CGI-21397-36
Photo Accession:
PXL_20230127_22
5720079
View: Northeast

Photograph 35:
CGI-21397-37
Photo Accession:
PXL_20230131_20
3442206
View: East

Photograph 36:
CGI-21397-38
Photo Accession:
PXL_20230131_19
2403439
View: East

Photograph 37:
CGI-21397-40
Photo Accession:
PXL_20230126_22
5045908
View: North

Photograph 38:
CGI-21397-41
Photo Accession:
PXL_20230126_22
5638957
View: North

Photograph 39:
P-13-014306 road alignment within Project site.
Photo Accession:
Photo 1
View: Northeast

Photograph 40:
P-13-017176 new locus.
Photo Accession:
PXL_20230126_172754867
View: South

Photograph 41:
P-13-017184
overview.
Photo Accession:
Photo 1
View: North

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APPENDIX A – CONFIDENTIAL CULTURAL RECORDS SEARCH RESULTS

APPENDIX B – CONFIDENTIAL NAHC RECORDS SEARCH RESULTS

Figure 2: Cultural Resources Within Project Site

TECHNICAL MEMORANDUM

To: David Brischke, PE, Burrtec Waste Industries, Inc. dbrischke@burrtec.com

From: Erwin A. Melis, PhD, Senior Hydrogeologist, CA PG Cert. No. GEO 8870
Michael A. Joncs, Principal Hydrologist

Date: March 7, 2023

Subject: Hydrogeologic evaluation in the Salton City Airport area, northwestern Imperial County, California

John Shomaker & Associates, Inc. (JSAI) was contracted by Burrtec Waste Industries, Inc. (Burrtec) to evaluate the potential for constructing one or multiple supply wells at the Salton City Airport and to evaluate the potential effects on neighboring wells. Burrtec owns the approximately 320-acre Salton City Airport, which lies south of Salton City, northwestern Imperial County, California, in the West Salton Sea Basin (No. 7-022), shown on Figure 1. This hydrogeologic evaluation relies in part on a previous evaluation of the area (JSAI, 2016), which included a field survey and background data review. The area is covered with sand dunes, springs, and active fault lines and falls under the Imperial County and the Imperial Irrigation District Groundwater Sustainability Agencies as established in 2018.

Hydrogeologic Setting

The West Salton Sea Basin is part of the larger geologic Salton Sea Basin, a closed drainage formed by the deposition of sediments from the Colorado River that separated it from the Gulf of California (Tompson et al., 2008). It is an active rift basin, and in the area of the Salton City Airport, the elevation is about 100 ft below sea level. The rift basin is filled with, thick sequences of Neogene- and Quaternary-age sediments, reaching thicknesses greater than 6,000 ft near the Salton Sea (JSAI, 2016, appendix B).

Spring and well locations, including oil and gas wells are shown on Figure 2. In peripheral areas of the basin, better-quality groundwater is found in coarser, permeable sediments. In the Salton City area, these sediments are fed by Tule Wash, Arroyo Salada, and Palm Wash flowing from the Santa Rosa Mountains to the Salton Sea. Nearer to the Salton Sea, the sediments are dominated by fine-grained, low-permeability lacustrine clays with poor-quality groundwater. Near the sea, saline groundwater flows to the surface through springs and abandoned wells.

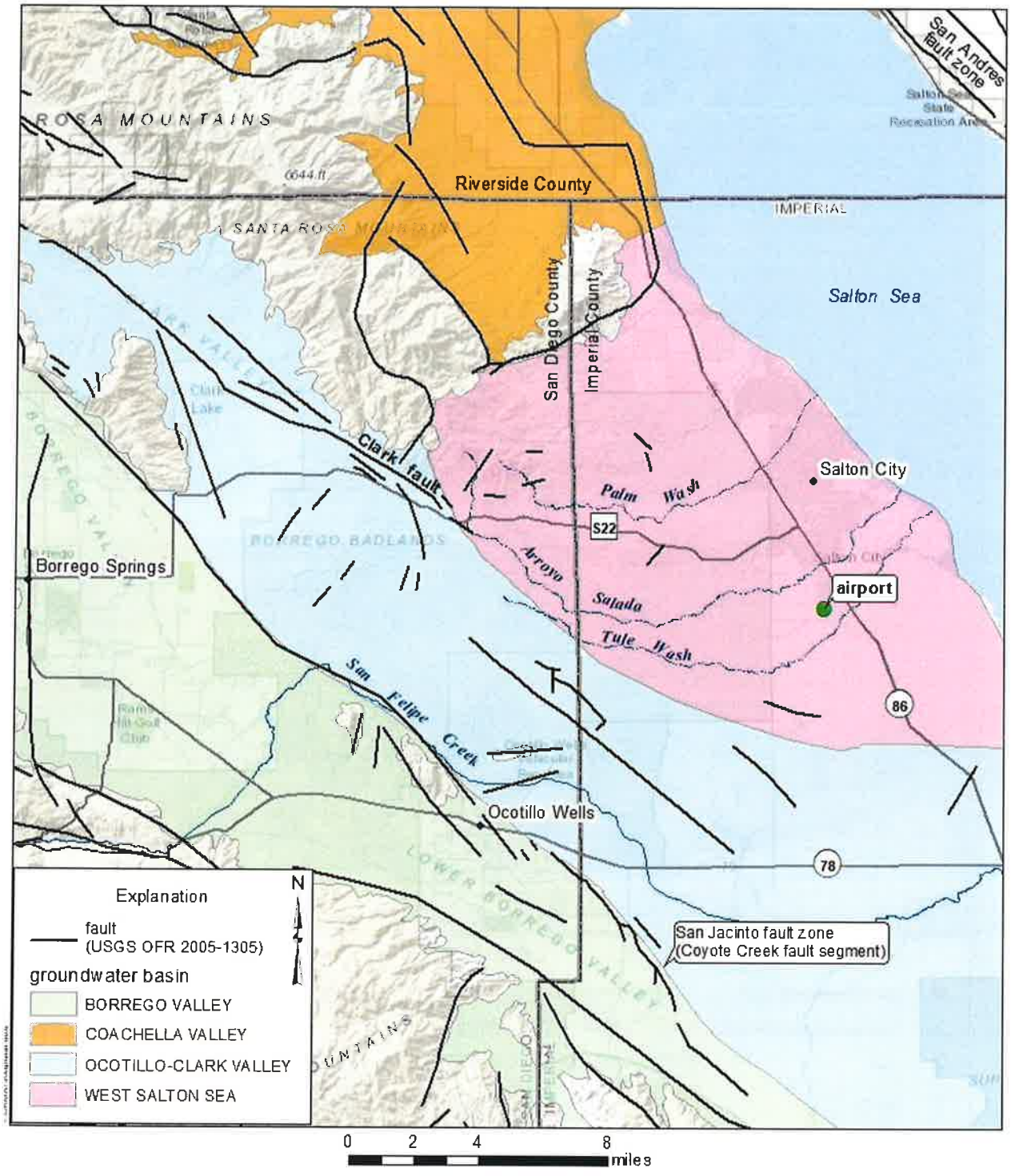

Figure 1. Regional map of the West Salton Sea Basin showing the Burrtec Salton City Airport site, northwestern Imperial County, California.

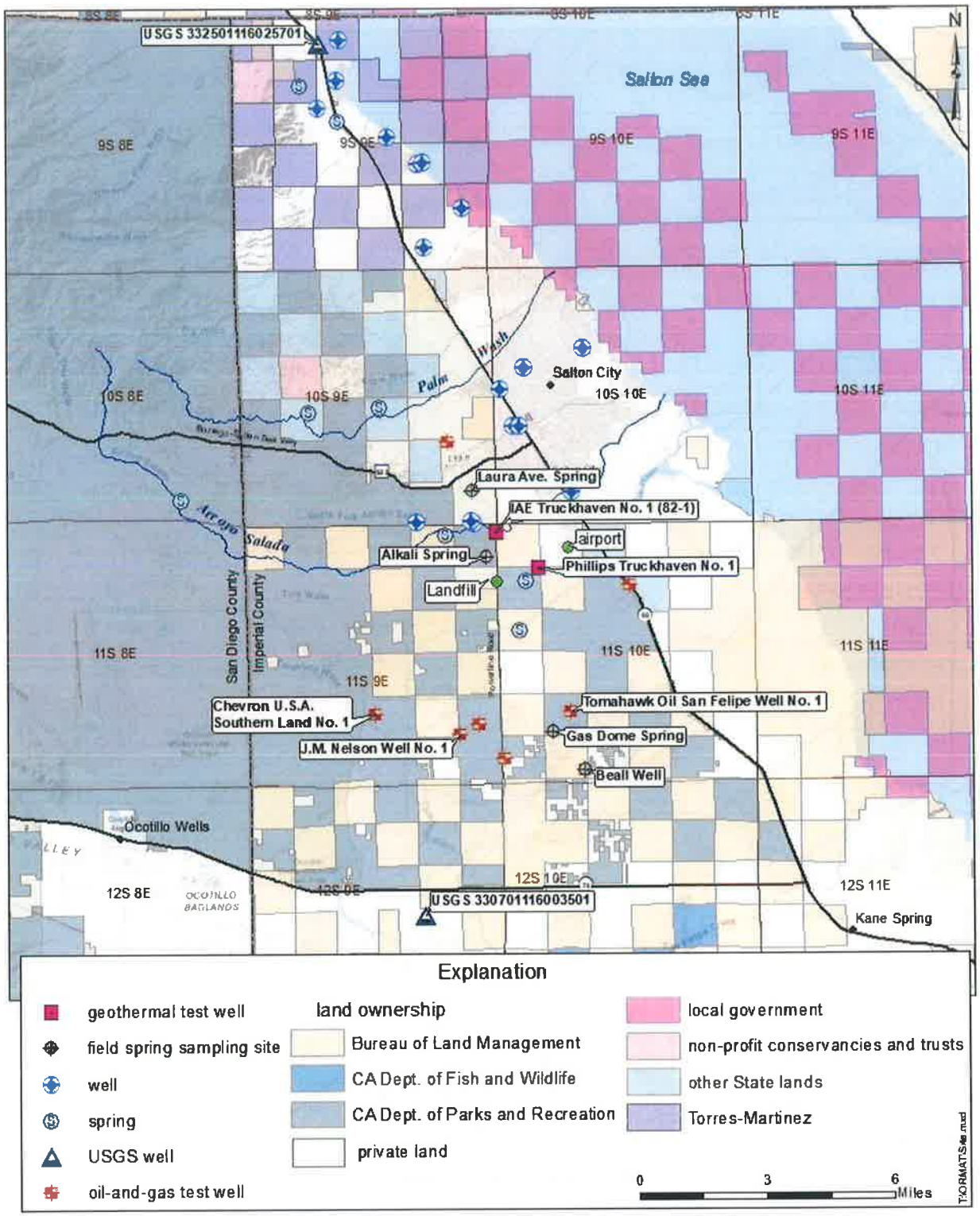

Figure 2. Map showing land ownership, and surrounding wells from USGS and DWR databases, springs, oil- and gas-wells, and geothermal test wells, northwestern Imperial County, California.

Burrtec Landfill Well Pumping Test

The Burrtec Landfill Well 1 is reported to be completed in 2009 to a total depth of 580 ft below ground level (bgl), with 8-in. stainless-steel blank casing and 140 ft of unknown screen with a slot size of 0.060 in. from 420 to 560 ft bgl in a 16-in. borehole with 1/4-in. well gravel. At the time of construction, it produced 75 gallons per minute (gpm) during a 60-hour pumping test, with a marked drawdown of 180 ft (well record); although drawdown of about 300 ft is perhaps most realistic, calculated assuming an initial artesian head of 120 ft, which was encountered during construction (JSAI, 2016). The latter calculates to a specific capacity of 0.25 gpm/ft of drawdown.

In 2014, this well could reliably only produce 20 to 25 gpm, with non-pumping artesian head at 46.2 ft above ground level. It is likely that the well's low capacity is from reduced well efficiency: for example, mineral encrustation or biofouling from the high-alkalinity, high-temperature groundwater (JSAI, 2016). In 2018, the well was rehabilitated and tested again, with results shown on Figures 3 and 4. The early recovery data are characteristic of an inefficient well, with much more drawdown in the well than in the adjacent aquifer. The slope of the last three points of the recovery data on Figure 3 indicates a transmissivity of 25 ft^2/day, suggesting the well is likely only perforated in low-permeability (or lacustrine) sediments. Despite the low-permeability sediments encountered, pumping rate stabilized at about 50 gpm with about 350 ft of drawdown (Fig. 4).

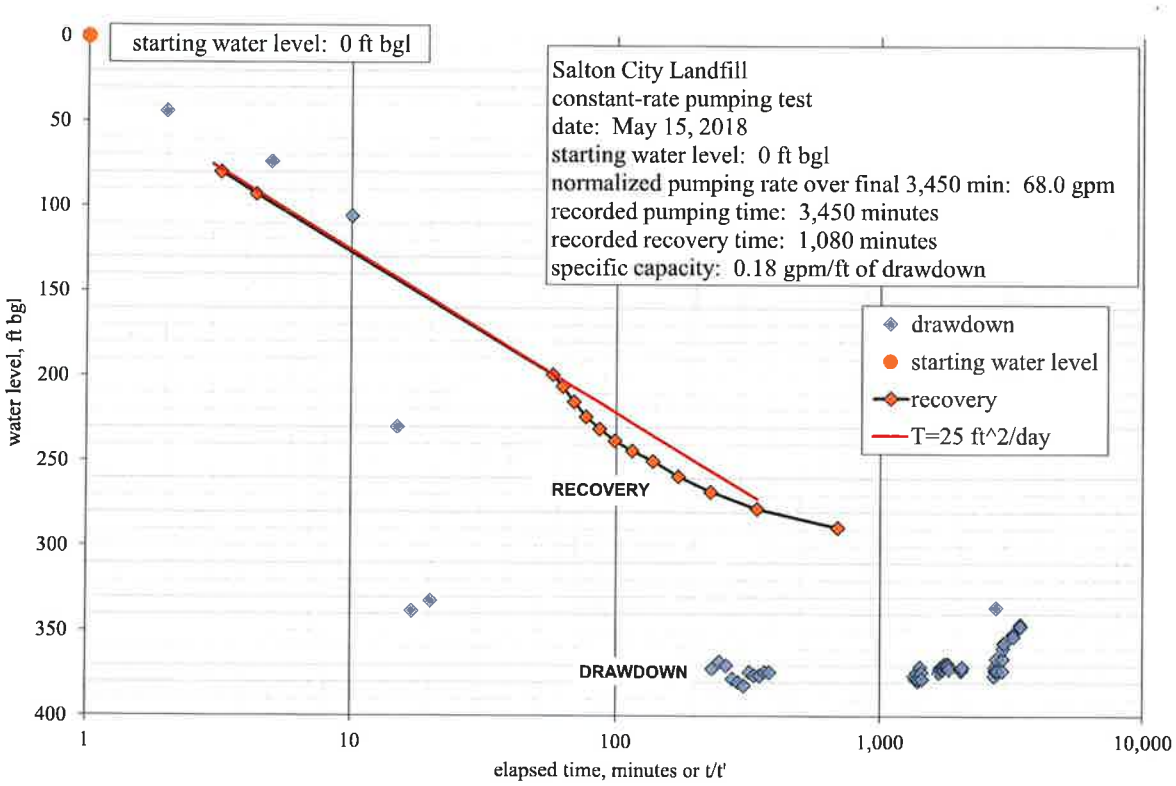

Figure 3. Semilogarithmic plot of drawdown and recovery data from a 3,450-minute constant-rate pumping test performed on Burrtec Landfill Well 1, northwestern Imperial County, California.

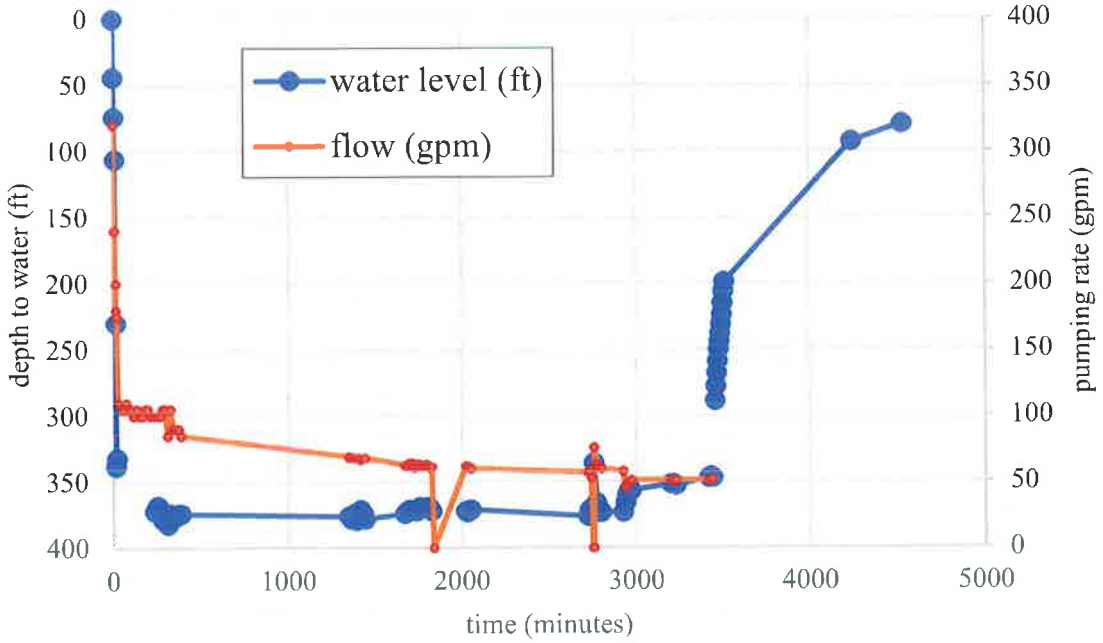

Figure 4. Modeled pumping water level plot for Burrtec Landfill Well 1, northwestern Imperial County, California.

Local Stratigraphy and Well Depths

It is possible that more permeable sediments could be encountered at greater depth than were intersected by the Burrtec Landfill Well 1, completed in the Diablo Formation of the Palm Springs Group or a transitional unit to the Borrego Formation of the Palm Springs Group. IAE Truckhaven Well No. 1 reported a 450 to 600 ft bgl "artesian water zone" (Layman, 2003) similar to the J.M. Nelson Well No. 1, which showed "water sand" at 115 and 390 ft bgl. It is likely that these sediments don't exist at the Burrtec landfill location, which is closer to the hinge of the antiform (JSAI, 2016) but these sediments could exist at slightly greater depths at the airport area.

The closest well to the airport is the Phillips Truckhaven No. 1 geothermal test well. It was logged twice in 1982. Examination of the logs (JSAI, 2016, appendix B) reveals four sandier layers between 980 to 1,671 ft bgl. Total aquifer transmissivity is much greater than that shown by the Burrtec Landfill well test, which only partially penetrates the aquifer. A proposed Burrtec airport well may access some of these coarser sediments, although the airport area is mapped as the finer-grained Borrego Formation consisting mostly of silty clay (JSAI, 2016).

Wells completed in the area range from 55 to 3,030 ft bgl, which was a Salton City well completed in 1958; Salton City municipal supply wells from that time period average 1,370 ft bgl. In the Salton City area, deeper (deeper than 400 ft bgl) supply wells (excluding oil- and gas-wells, and geothermal wells) number about two dozen and range from 580 to 3,030 ft bgl in depth and average 1,060 ft bgl in depth. Water at 1,000 ft bgl may be plentiful, but also may be hot, or about 140°F, as the airport is in a known geothermal lease area.

Effects on Neighboring Wells

Additional drawdown on neighboring wells by pumping at the airport will be small. The nearest neighboring well identified is about 4,800 ft away and inactive. The next closest neighboring wells (to the north) identified are more than 10,000 ft away. Most of the neighboring wells are also likely inactive, as a field reconnaissance in December of 2015 found only old Salton City wells northwest of the landfill (JSAI, 2016). Currently the area is part of the Coachella Valley Water District and all water is piped south to Salton City from the Coachella Valley in Riverside County (see Fig. 1).

Using a Theis equation to calculate distance-drawdown effects, given a specific yield of 20 percent, and various realistic transmissivities gives the effects of pumping a new Burrtec airport well on water level in neighboring wells. Maximum projected drawdown (decline) shown on Figure 5 is less than 2 ft at a distance of 10,000 ft from the airport after 20 years of pumping for a range of transmissivities, including the 25 ft^2/day for the Burrtec Landfill Well 1 documented at the landfill.

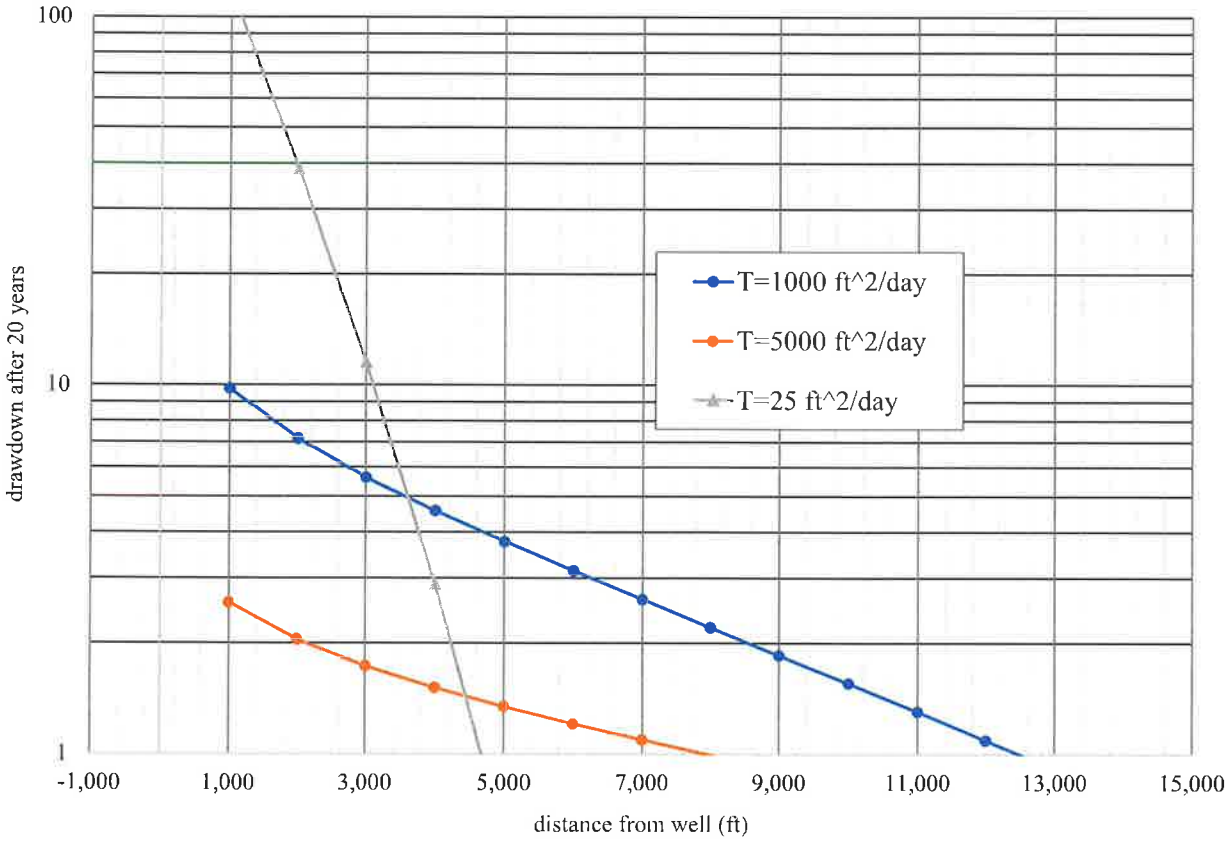

Figure 5. Theis equation calculated drawdown after 20 years of pumping for a range of transmissivities, northwestern Imperial County, California.

Conclusions

Although sediments underlying the site are mainly low-permeability lacustrine clays, lenses of coarser, more permeable material are found in both the Borrego Formation and the Diablo Formation of the Palm Springs Group. A properly-constructed, sufficiently deep well (1,000 to 1,500 ft bgl) should encounter permeable strata and be able to produce the required flow of 125 gpm, although the groundwater will likely be hot (>140°F).

Alternatively, 2 to 4 shallower wells, spaced as far apart as possible on the airport property, would produce the required flow, as a 500 to 750 ft bgl well may only be able to pump between 50 and 75 gpm, possibly as high as 100 gpm from a highly efficient supply well, which intercepts some coarser strata. A back-up well should be available, if two additional wells are contemplated.

Effects to neighboring wells would be less than 2 ft outside of a 10,000-ft radius of a proposed airport supply well (see Figs. 5 and 6). However, due to (1) the lack of nearby wells and (2) the low transmissivity of the aquifer, these limit the radius of additional drawdown effects on wells of other ownership. Figure 6 shows the projected extent of drawdown around the proposed Burrtec airport well in the Salton City area after 20 years given a transmissivity of 1,000 ft^2/day.

If wells at the airport site were drilled to a proposed depth of 500 to 750 ft (David Brischke, Burrtec, personal communication), aquifer properties will likely be similar to the Burrtec Landfill Well 1, and multiple wells would be required. If coarser sediments are encountered at the proposed depths, drilling deeper could be advantageous to save costs: for example, reducing the number of wells needed from four to three wells. Deeper wells will produce water with higher water temperature.

Projected drawdown around one well is shown on Figure 5 assuming transmissivity of 25 ft^2/day. If more than one well is completed, the wells would need to be over 3,000 ft apart to keep interference effect below 10 ft of drawdown. Two to four wells are recommended, spaced as far apart as possible on the approximately 320-acre airport property. If two wells are able to meet the demand it is strongly recommended to have a third well as a back-up.

Other Considerations

The total dissolved solids (TDS) concentration is estimated to be 4,500 milligrams per liter (mg/L) (Koenig, 2011). Groundwater temperatures generally exceed 100°F below 500 ft bgl, and 140°F below 1,000 ft bgl and increase to greater depths (JSAI, 2016).

A stainless-steel wire-wrapped or louvered screen will be required; wire-wrapped screen will provide the most open area, although a properly jetted and developed louvered wells will also provide an efficient well, given proper well design, construction, development and testing. Mild steel and PVC should be avoided as construction materials because of the corrosive properties of the saline and high-temperature water.

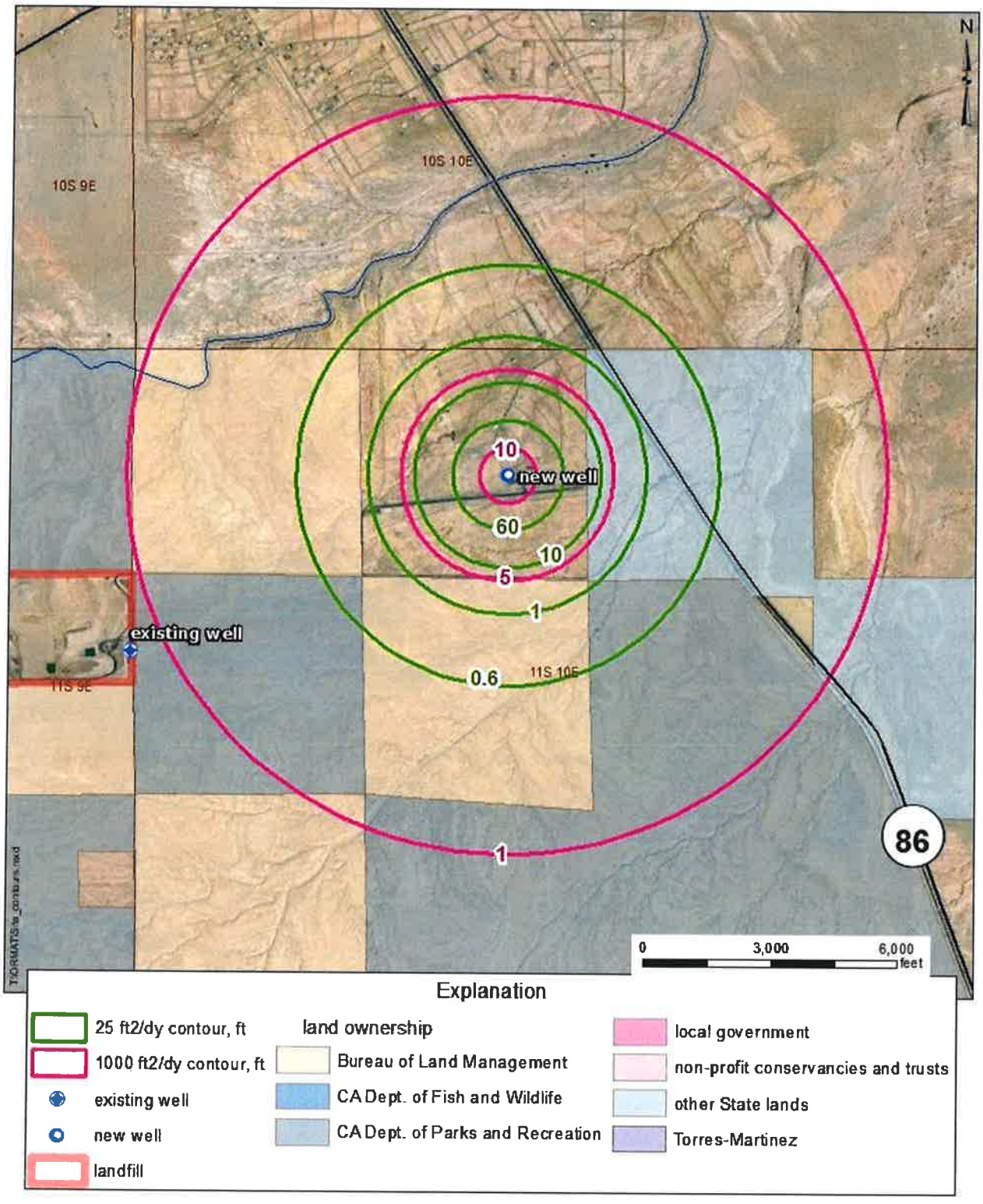

Figure 6. Projected extent of drawdown in the Salton City Airport area, northwestern Imperial County, California.

Given the depth of the basin, it is likely that a well drilled sufficiently deep at the proposed location west of the hangar at the airport should intersect multiple higher-permeability units and apparent transmissivity could increase with well depth. Figure 4.6 of Tompson et al. (2008) shows two wells in the immediate area yielding more than double the required amount. Extrapolation of the Burrtec Landfill Well 1 data from 2018 (Fig. 4) suggests that the required rate of 125 gpm could be achieved with about 875 ft of drawdown in a similarly completed well. A well depth of about 1,200 ft bgl, with an adequate length of screen, is recommended to accommodate such a large amount of drawdown.

Hydrographs of USGS-monitored wells (330701116003501 and 332501116025701) in the area show declining water levels in the Salton City area to about 2006, when water-levels recovered between about 25 and 40 ft (to present) with an average decline from 1953 of 3 ft/yr prior (USGS-monitored wells hydrographs are given as Fig. 7).

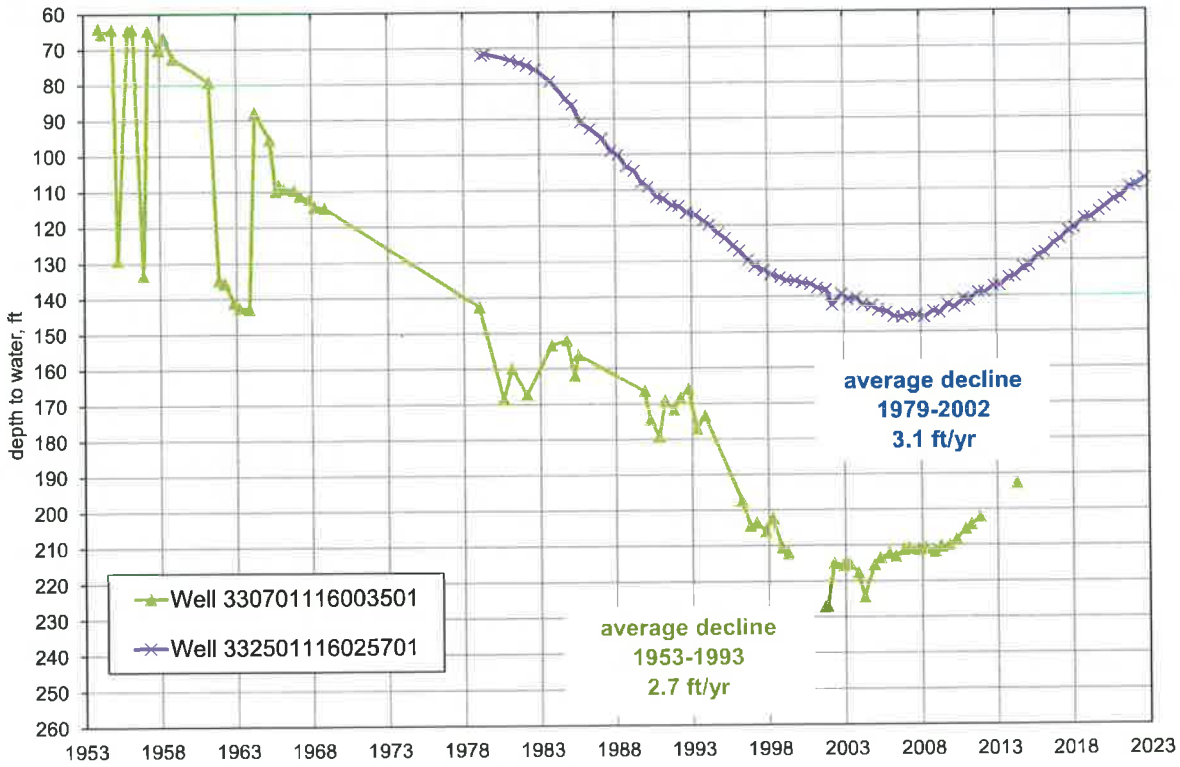

Figure 7. Graph showing historical water-level measurements collected by USGS for selected wells in the larger Salton City area, northwestern Imperial County, California.

EAM:MAJ

Enc: References

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CONDITIONAL USE PERMIT

I.C. PLANNING & DEVELOPMENT SERVICES DEPT.
801 Main Street, El Centro, CA 92243 (760) 482-4236

- APPLICANT MUST COMPLETE ALL NUMBERED (black) SPACES -- Please type or print -

1. PROPERTY OWNER'S NAME Burrtec Waste Industries, Inc.	EMAIL ADDRESS dbrischke@burrtec.com	
2. MAILING ADDRESS (Street / P O Box, City, State) 9890 Cherry Avenue, Fontana CA	ZIP CODE 92335	PHONE NUMBER (909) 429-4200
3. APPLICANT'S NAME David Brischke	EMAIL ADDRESS dbrischke@burrtec.com	
4. MAILING ADDRESS (Street / P O Box, City, State) 9400 Cherry Avenue, Building C, Fontana, CA 92335	ZIP CODE 92335	PHONE NUMBER (909) 429-4200
4. ENGINEER'S NAME David S Brischke — CA. LICENSE NO. RCE No. C46521	EMAIL ADDRESS dbrischke@burrteec.com	
5. MAILING ADDRESS (Street / P O Box, City, State) 9400 Cherry Avenue, Building C, Fontana, CA 92335	ZIP CODE 92335	PHONE NUMBER (909) 714-8146

6. ASSESSOR'S PARCEL NO. 017-970-009: 017-970-010: 017-970-011: 017-970-012	SIZE OF PROPERTY (in acres or square foot) 299.79 Acres	ZONING (existing) S1
7. PROPERTY (site) ADDRESS 1590 Air Crest Drive		
8. GENERAL LOCATION (i.e. city, town, cross street) Salton City		
9. LEGAL DESCRIPTION See Attached Drawing Set, Sheet G03 - The parcels of land that combine to make the Salton City Airport		

PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail) Drilling & developing a large commercial water well to support farming activity on the unused portion of the Salton City airport property while keeping the airport functioning as permitted.	
11. DESCRIBE CURRENT USE OF PROPERTY	Rural private airport surrounded by vacant and underutilized open desert
12. DESCRIBE PROPOSED SEWER SYSTEM	Sewer service to property provided by Salton Sea Community Services District
13. DESCRIBE PROPOSED WATER SYSTEM	Domestic water service provided by Coachella Valley Water District.
14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM	Imperial County Fire Department
15. IS PROPOSED USE A BUSINESS? ☒ Yes ☐ No	IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE? Estimated 2 to 4

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

David S Brischke — 07/23/2021
Print Name — Date

Signature

Print Name — Date

Signature

REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN
B. FEE
C. OTHER
D. OTHER

APPLICATION RECEIVED BY:	DBK	DATE	1/14/22
APPLICATION DEEMED COMPLETE BY:	DB	DATE	2/1/23
APPLICATION REJECTED BY:		DATE	
TENTATIVE HEARING BY:		DATE	
FINAL ACTION: ☐ APPROVED ☐ DENIED		DATE	

REVIEW / APPROVAL BY OTHER DEPT'S required.
☐ P. W.
☐ E. H. S.
☐ A. P. C. D.
☐ O. E. S.
☐ _____
☐ _____

CUP #
22-0002

Salton City Airport Farm
Project Description

Burrtec Waste Industries, Inc., wishes to construct a large commercial well approximately 25 feet west of the airport hangar building at the Salton City Airport. Water from the well will be used to support a planned farming operation on the unused lands around the runway and hanger building. All activities including crop selection will be managed in accordance with the guidelines and restrictions of Imperial County Airport Land Use Compatibility Plan as well as all other appropriate Federal, State and Local rules and regulations.

Preliminarily, the well will be completed as follows:

1) Total depth between 600 and 750 feet below ground surface.
2) Casing assumed to be 304 stainless with solid wall to 350 feet then screened to bottom.
3) 75 hp - 750 gpm vertical turbine pump, 480 volt/3ph
4) 8-inch diameter column pipe, 45 to 60 psi operating pressure

Salton City Airport consists of 6 adjoining separate parcels of land totaling approximately 300 acres. The Airport, which was first constructed in the late 1950's was constructed with a lighted main east/west runway 75 feet wide by 4,800 feet. Also constructed at the facility was a 3,000 square foot hanger and a 1,250 square foot office with restroom facilities. BWI purchased the Airport Property in a private land sale in 2010 and has operated and maintained the facility bringing the badly degraded runway surface, hanger and offices up to code for continued operation as a private airport. Air traffic in and out of the facility is very limited to periodic use by privately owned light aircraft and occasional rotary wing military aircraft from the regional training facilities that request use of the airport for practice maneuvers.

The runway and hanger/office facilities and the associated flight safety zones surrounding the runway account for approximately 50 acres of the property, leaving 250 acres undeveloped as open desert. BWI is proposing to convert the unused portion of the airport property to productive agricultural lands for growing of commercial crops. No specific crop has been selected at this time, however, it is anticipated that it may be a feed crop such as alfalfa.

The heavy clay ground will require addition of organics and amendments to support crop production. Organics may include composted green material, composted green/wood and food wastes, manures, dried Class A (EQ) biosolids along with gypsum and other common agronomic additives used to improve soil drainage and crop production and reduce water needs. Operations will be undertaken in compliance with the State Water Resource Control Board, Water Quality Order No. 2004-0012-DWQ, General Waste Discharge Requirements for the application of soil amendments to land in agriculture activities.

Best management practices such as cross-slope farming and diversion terraces will be employed to conserve soil and reduce erosion from rainfall runoff and winds as may be required by Imperial County. All activities including plowing and disking, soil amendment addition, planting and harvesting will be undertaken to promote "good neighbor" community relations consistent with the intent of Imperial County Agricultural Element including the County's Right-To-Farm Ordinance.