



## PROJECT MANUAL

### NILAND COUNTY SANITATION DISTRICT – WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM IMPROVEMENTS COUNTY PROJECT NO. 6582NSD

September 25, 2023

Funded by:  
North American Development (NAD) Bank No. ??

California Department of Housing and Community Development (HCD)  
Through Its Community Development Block Grant (CDBG) Program  
HCD Project No. SR49337  
CDBG Grant No. 20-CDBG-12086

United States Department of Agriculture (USDA) Rural Development  
USDA No. ??

Prepared by:  
The Holt Group, Inc.  
THG Project No. 542.089

For:  
Imperial County Public Works Department  
155 South 11<sup>th</sup> Street  
El Centro, CA 92243  
Point of Contact: David Dale  
Office: (442) 265-1818



## VOLUME 2 OF 5 SPECIAL CONDITIONS

## Special Conditions

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## 1. Project Description

The project description is located on plan sheet C-101, the Title Sheet of the Civil Improvement Plans. The project description follows:

The Niland Wastewater Treatment Plant (WWTP) has a long history of effluent discharge violations dating back to 2003. The majority of the violations were the result of National Pollutant Discharge Elimination System (NPDES) permit violations for copper and Thallium. A 2016 preliminary engineering report (PER) prepared by the Holt Group, Inc. reviewed the Niland WWTP effluent violations and alternative improvements to address the violations. The alternative selected to address the discharge violations was to construct evaporation ponds for the ultimate disposal of the treated effluent wastewater. The evaporation ponds will allow for the elimination of the point discharge to the Imperial Irrigation District "R" drain and the NPDES discharge permit wastewater effluent requirements. A waste discharge requirement (WDR) permit will be required for the Niland WWTP and evaporation pond system in lieu of the NPDES discharge permit. In addition to the construction of evaporation ponds, improvements to the gravity sanitary sewer pipeline collection system upstream of the WWTP are to be accomplished. The improvements to the gravity sanitary sewer pipeline collection system will limit infiltration (including copper and thallium) into the collection system and WWTP. The existing WWTP will remain operational to treat the influent raw wastewater to a secondary effluent condition prior to directing the secondary effluent to the evaporation ponds. Capital improvements to the existing WWTP components, as a resultant from aged treatment plant infrastructure will also be accomplished to ensure the existing wastewater treatment plant components are satisfactorily functioning.

The three (3) Primary Niland WWTP and collection system project components and major items associated with each component consist of the following items:

1. Existing WWTP improvements including:
  - 1.1. Replacement of fiberglass grating at the top of the raw influent pump station wet well with an aluminum access hatch.
  - 1.2. The influent flowmeter precast concrete vault is to be raised to a higher elevation to prevent flooding of the flowmeter.
  - 1.3. The sludge in aeration pond number 1 is to be removed and placed in a new sludge containment basin. The HDPE liner in aeration pond number 1 is in poor condition and is to be replaced with a new HDPE liner.
  - 1.4. Repair of HDPE liner material at aeration ponds number 2.
  - 1.5. The existing six (6) aerators in aeration ponds 1 through 6 are to be replaced with new aerators.

- 1.6 The existing resilient wedge gate valves along the piping within the aeration ponds and remaining plant facility are currently non-functional. This includes replacing the Valves Upstream of the headworks structure. The resilient wedge gate valves are to be replaced with eccentric plug valves.
  - 1.7 The existing chemical containment basin structure has failed and cannot be rehabilitated. The existing chemical containment structure is to be abandoned. New sodium hypochlorite and sodium metabisulfite chemical system facilities are to be constructed. The chemical systems shall include the chemical tanks, pumps, piping, eye wash stations, shade structures, concrete support slabs, electrical circuitry, and other miscellaneous items.
  - 1.8 Rehabilitate the chlorination/de-chlorination structure's failed concrete walls and floor areas. A new flash mixer is to be installed. The suspended concrete slab for the flash mixer is to be replaced.
  - 1.9 Improvements at the flowmeter/sampling vault include the installation of an aluminum grate at the top of the vault.
  - 1.10 Improvements at the ground water pump station include the replacement of the plywood cover located at the top of the wet well with an aluminum access hatch.
  - 1.11 A new potable water treatment facility with shade structure is to be constructed for the WWTP wash down water and to provide potable water for the laboratory building.
  - 1.12 The WWTP entrance road bridge crossing the Imperial Irrigation District "R" canal is to be replaced by the Imperial Irrigation District.
  - 1.13 A new automatic entrance gate is to be installed.
  - 1.14 Other minor existing WWTP capital improvements.
2. Construction of evaporation ponds and effluent conveyance system including:
    - 2.1 Installation of an effluent pump station downstream of the existing WWTP flowmeter/sampling vault. The effluent pump station will transmit the existing WWTP treated effluent to the evaporation ponds.
    - 2.2 Installation of 8-inch diameter gravity and 6-inch diameter force main conveyance piping from the effluent pump station to the evaporation ponds including valves, fittings, and appurtenances.



- 2.3 Installation of a standpipe along the gravity and force main effluent conveyance piping. Installation of concrete headwalls at the piping outlet point to the evaporation ponds.
  - 2.4 Construction of three (3) evaporation ponds using the native earth at the project site. Each evaporation pond bottom shall consist of ten (10) acres. The total evaporation pond site is comprised of 56 acres.
  - 2.5 Installation of monitoring wells around the perimeter of the evaporation ponds.
  - 2.6 Installation of a 6-foot-high chain link fence around the perimeter of the evaporation pond site.
  - 2.7 Construction of an all-weather access road extending from the interior of the existing WWTP to the evaporation pond site.
  - 2.8 Construction of an all-weather access road extending from the interior of the existing WWTP to the evaporation pond site.
3. Collection system improvements
- 3.1 Rehabilitate the existing wastewater collection system 10-inch diameter gravity pipeline along Alcott Road from the existing WWTP to Highway 111 with a cured in place piping (CIPP) method.
  - 3.2 Rehabilitation of the interior of ten (10) existing sanitary sewer manholes along the gravity sanitary sewer outfall pipeline.

**END SPECIAL CONDITION SECTION 1**

## **2. Contract Documents, General Conditions, Special Conditions, and Drawings**

The Bidding Documents is defined in the General Conditions as, “The Bidding Requirements, the proposed Contract Documents, and All Addenda.” The Contract Documents is defined in the General Conditions as “Those items so designated in the Agreement, and which together comprise the Contract.” The bound documents prepared for bidding and contract. A listing of the contents of the Bidding Documents, which may be bound in one or more volumes, is contained in each Volume’s Table of Contents.”

The Bidding Documents for this project are comprised of five (5) volumes as follows:

- 1. Volume 1 of 5** – Volume 1 contains the following, non-inclusive documents:  
Bidding Requirements,  
Bid Forms,  
Agreement,  
Standard General Conditions, and  
Supplementary Conditions.
- 2. Volume 2 of 5** – Volume 2 contains the Special Conditions Section of the Specifications.
- 4. Volume 3 of 5** – Volume 3 contains the last portion of the Technical Specifications.
- 5. Volume 4 of 5** – Volume 4 contains the Wastewater Treatment Plant Improvement Drawings (Plan Sheets) that are plan sheets 1 through 50. There is an index of the plan sheets on the first plan sheet (Title Sheet).
- 6. Volume 5 of 5** – Volume 5 contains the Sewer Collection System Improvement Drawings (Plan Sheets) that are plan sheets 1 through 6. There is an index of the plan sheets on the first plan sheet (Title Sheet).

**END SPECIAL CONDITION SECTION 2**

### 3. Sequence of Construction

The Sequence of Construction for this project shall be accomplished in the order specified below. There are significant construction activities required which are noted in the list below. Any deviations or construction items not specifically mentioned below are to be noted and submitted by the contractor prior to the commencement of the construction.

1. It will be necessary to maintain the operation of the Niland Wastewater Treatment Plant during the construction of this project.
2. The replacement of the isolation valves is to be conducted prior to isolation and construction of the aeration ponds.
3. Only one aeration pond can be worked on at any given time.
4. A bypass shall be set in place and ready for operation prior to the improvements of the disinfection contact chamber.
5. The new chlorination and de-chlorination systems shall be constructed and operational prior to the demolition of the existing chlorination and de-chlorination systems.
6. It will be necessary to maintain the operation of the sewer flow through the sewer collection pipes throughout the rehabilitation of the sewer pipelines.
7. Bypass of any pipelines.
8. Bypass of Operational Flows during Construction

The Contractor shall maintain and provide all required pumping equipment, fuel, electricity, suction piping, discharge piping and all fittings necessary to dispose of the water resultant from removing, demolishing and/or interconnecting the existing wastewater pipelines and facilities. The Contractor, Engineer and Owner shall agree on an acceptable downstream point to dispose of the water/wastewater resultant from the pipe and/or structure connection and disconnection construction activities. A minimum 500 gallon per minute pump shall be maintained at the project site. The pump shall be in operational condition. The pump shall be witnessed to be operational by the Engineer a minimum of 24 hours prior to construction activities to the existing or new Owner pipelines or facilities.

The Contractor shall provide lighted barricades 5 feet on center around all open excavations. If open excavations are maintained in an "open" condition after working hours or during holidays and weekends, it shall be required for the Contractor to place a 6-foot tall, 9-gauge chain link fence around the perimeter of the excavation. The fencing shall be capable of withstanding a 300-pound

perpendicular thrust. Open excavations at side street intersections, alley entrances or commercial, business and residential driveways shall be covered with steel plate bridging of adequate size to cover the excavation as determined by the Engineer.

9. Pipeline and Structure Connections Requiring Facility Shutdown

This project shall have new pipeline connections to existing active wastewater/water pipelines/facilities. It shall be necessary to accomplish connections within a four (4)-hour period as it will be necessary to “shut down” the wastewater treatment plant or major facilities, during a portion of the required connections. The connection to the existing pipelines shall commence at 1:00 a.m. at night and be completed by 5:00 a.m. (or other time of low flow approved by the Owner’s Operators). Once the existing pipelines are disconnected, it will be necessary to drain the wastewater/water from the existing pipelines prior to completing the pipeline connection. The Contractor shall provide all the required pumps, suction hoses and discharge hoses to dispose of the wastewater/water resulting from the pipeline.

Separate time periods shall be required for multiple pipeline and/or structure connections. After the pipeline and structure connections are completed, it will be necessary to re-activate the existing pipelines at the wastewater treatment plant. The Contractor should anticipate that horizontal locations, type of pipeline material, the inside and outside diameter of existing pipelines and number and type of other underground facilities may vary from the Plans and shall be exactly determined in the field after the excavation of the existing facilities is initially accomplished. The Contractor shall excavate the area where connections are to be accomplished and verify the horizontal location and outside diameter and material type of the existing pipeline facilities prior to ordering materials and fittings. The Contractor shall provide all necessary piping, fittings, reducers, transition couplings and all other components required to adapt the new pipeline to the existing pipeline or to modify the pipeline horizontal and vertical location to avoid existing pipelines, structures or utilities. The Contractor shall measure the outside diameter of the existing pipelines at the exact locations where connections are to be accomplished. The elastomeric O-Ring sizes for transition couplings shall be field determined to insure successful connection to the existing pipe facilities. All fittings, valves, piping, hardware, transition couplings, O-Rings and all other components shall be present at the project site and inventoried by the Engineer a minimum of 24 hours prior to severing the existing pipelines. The Contractor shall receive final approval to connect to the existing pipeline system or structures a minimum of 72 hours prior to accomplishing the connections.

**END SPECIAL CONDITION SECTION 3**

#### 4. List of Project Submittals

Submittal Information shall be forward to the Engineer in electronic copy and hard copy form. Technical Specification Section 01300 – Submittals provides details for processing submittals. The following is a list of submittals for the project. It is provided as a basis of submittals and is be expanded as required.

##### General Requirements

- 1.01 Construction Schedule
- 1.02 Schedule of Values
- 1.03 Letter Designation Project Superintendent
- 1.04 Emergency Contact Number
- 1.05 Operation and Maintenance Manuals
- 1.06 Project Sign(s)

##### Site Work

- 2.01 SWPPP Plan (updated)
- 2.02 Excavation Plan
- 2.03 Dewatering Plan
- 2.04 Dust Control Plan
- 2.05 Water Disinfection Plan
- 2.06 Class 2 Base Gradation, Maximum Density and Sand Equivalent
- 2.07 Granular Sand Gradation, Maximum Density and Sand Equivalent
- 2.08 3/4" Crushed Rock
- 2.09 1" Gravel
- 2.10 Crusher Fines
- 2.11 Ductile Iron Pipes & Spools
- 2.12 Ductile Iron Valves
- 2.13 Ductile Iron Fittings
- 2.14 PVC Pipe
- 2.15 PVC Valves
- 2.16 PVC Fittings
- 2.17 Magnetic Detector Tape (Warning Tape)
- 2.18 Pipe Supports
- 2.19 Copper Tubing & Fittings
- 2.20 Flange Bolts and Nuts (Hardware)
- 2.21 Chain Link Fence
- 2.22 HDPE Liner
- 2.23 Fiber Rolls
- 2.24 Geotextile Fabric

##### Concrete

- 3.01 Reinforcement Steel
- 3.02 Cast-In-Place Concrete
- 3.03 Grout

- 3.04 Slurry
- 3.05 Concrete Vault
- 3.06 Pre-Cast Concrete

#### Metals

- 4.01 Steel Dead Font Enclosure
- 4.02 Anchor Bolts
- 4.03 Stainless Steel Hardware
- 4.04 Aluminum Grating
- 4.05 Unistrut Assemblies

#### Finishes

- 5.01 Coating of Wet Well
- 5.02 Sealants

#### Equipment

- 6.01 Submersible Pump
- 6.02 Potable Water Pump Skid
- 6.03 Chemical Pumps
- 6.04 Miscellaneous Steel Fittings

#### Special Construction

- 7.01 Sodium Hypochlorite Tank
- 7.02 Sodium Metabisulfite Tank
- 7.03 Potable Water Tank
- 7.04 Tank Appurtenances
- 7.05 Aluminum Access Hatch Door
- 7.06 Shower/Eye Wash Station Assembly
- 7.07 Air Conditioner
- 7.08 Flash Mixer
- 7.09 Floating Aerator
- 7.10 Shade Structure

#### Mechanical

- 8.01 Chemical Piping and Tubing
- 8.02 Eccentric Plug Valve
- 8.03 Stainless Steel Pipe
- 8.04 Stainless Steel Fittings & Valves
- 8.05 Stainless Steel Air Valve
- 8.06 Valve Risers and Covers

#### Electrical

- 9.01 Conduit
- 9.02 Grounding
- 9.03 Electrical Panel

#### Instrumentation

- 10.01 Light Assembly
- 10.02 Float Switches
- 10.03 Cast Iron Junction Box
- 10.04 Air Conditioner

**END SPECIAL CONDITION SECTION 4**

**5. Permits**

The permits required for this project are listed below. The Contractor shall pay for all permit costs. The contractor shall include the below anticipated cost of the permits in the contractors bid. The actual permit cost will not be known until the contractor obtains the permit. If the actual permit cost is more than the amount illustrated under the below anticipated permit column, then the contractor will be compensated for the difference between the actual permit cost and the anticipated permit cost by means of a positive change order. If the actual permit cost is less than the amount under the below anticipated permit cost, then the County of Imperial will be compensated for the difference between the actual permit cost and the anticipated permit cost by means of a negative change order.

PROJECT PERMITS

<u>Type of Permit</u>	<u>Issuing Agency</u>	<u>Anticipated Cost of Permit</u>
Grading/Encroachment Permit	County of Imperial Public Works Department	\$6,500.00
Dust Control Plan -	County of Imperial Air Pollution Control District	\$0.00
Contractor's Construction Trailer Permit	County of Imperial Planning and Development Services Department	\$2,500.00

**END SPECIAL CONDITION SECTION 5**



## 6. Project Signs

The Contractor shall be required to furnish and install signs for the project.

1. A project identity sign is required for this project. At a minimum this sign must have the project name, the awarding agencies' information, the funding agencies' information. The project identity sign shall be installed at locations designated by the Engineer.
2. California and Federal labor laws require employee notices and posters be provided at all project sites that employ workers. Federal labor laws for Public Works projects require the current Federal Wage Decisions to be posted and maintained at the project site for the duration of a construction project. California labor laws for Public Works projects require the current State Wage Decisions to be posted and maintained at the project site for the duration of the construction project. In addition there are EEO, OSHA and other required postings to be posted and maintained at the project site for the duration of the construction project.
3. A clear Plexiglass plate is to be placed over the sign to protect the posters from the elements.
4. The Contractor is responsible to provide, install and maintain the project signs required by this section. The Project signs shall be forwarded to the Engineer as a submittal document for review and approval by the Engineer. The Project signs are to be erected at the project site prior to commencement of any work activities. The Project signs are to remain posted for the entire duration of the construction project.
5. Two (2) Project Signs are to be provided for this project.
6. Below is a typical project identity sign that includes the project name, credit to the funding agency(ies), the awarding agency, owner, along with any other pertinent.

**THIS PROJECT IS ADMINISTERED BY THE  
COUNTY OF IMPERIAL, WITH FUNDING FROM THE CALIFORNIA  
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT'S (HCD)  
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM**

IMPERIAL COUNTY  
2799 South 4th Street  
El Centro, CA 92243  
(442) 265-1104



- Project identity sign to be placed on white background with black lettering.
- Provide and install logos.
- Sign to measure at a minimum 48" wide and 36" high.
- Provide artwork as required by Owner and Funding Agency(ies).

**END SPECIAL CONDITION SECTION 6**

## **7. Air Pollution Control District Requirements**

The Contractor shall be responsible for abiding with the latest edition of Regulation VIII set forth by Imperial County Air Pollution Control District. A copy of Regulation VIII is available from the Imperial County Air Pollution Control District.

The Contractor shall also be responsible for preparation and submission of a Construction Notification Form and Dust Control Plan to the County of Imperial Air Pollution Control District. The Construction Notification Form and Dust Control Plan shall also be posted at the Project Site. A copy of the Construction Notification Form and Dust Control Plan shall follow Regulation VIII.

The Imperial County Air Pollution Control District contact information is:

150 South Ninth Street  
El Centro, CA 92243  
Phone: 760-482-4606  
Fax: 760-353-9904  
<http://www.imperialcounty.net/AirPollution/>  
Contacts:  
Reyes Romero, Assistant Air Pollution Control Officer  
Monica Soucier, Division Manager Planning

The Contractor is to include the costs associated with the Air Pollution Control District requirements in the Bid.

**END SPECIAL CONDITION SECTION 7**

## **8. Survey and Construction Staking**

The contractor shall be responsible for the survey and construction staking required for construction of this project, as is confirmed in Technical Specification Section 01722. The survey and construction staking requirements are called Improvement Plans, Technical Specifications and below.

The County of Imperial Department of Public Works' County Surveyor requires the preservation of monuments. The Contractor is responsible to provide the survey scope of work as required of the Monument Preservation Report - Pre-construction form (MBR-01) and the Monument Preservation Report - Post-construction form (MBR-02). The MBR-01 and MBR-02 are attached as **Appendix A**.

The MBR-01 scope of work is to be conducted, submitted and approved by County Surveyor prior to the commencement of any construction activities at the project site.

**END SPECIAL CONDITION SECTION 8**

## **9. Geotechnical Report**

A Geotechnical Report for the design and construction of this project was prepared by Landmark Consultants, Inc.; Project Number LE19176, dated January 21, 2020. A copy of the Geotechnical Report is attached to these Special Conditions as **Appendix B**.

The contractor shall be responsible for the geotechnical inspections, observations, and testing required for construction of this project, as is confirmed in Technical Specification Section 02200. The inspection, observation, and testing requirements are called out in the Geotechnical Report, Improvement Plans and Technical Specifications.

**END SPECIAL CONDITION SECTION 9**

## 10. Project CEQA and NEPA Documents and Environmental Requirements

A Condition Use Permit (Permit No. 19-0006) was approved on August 14, 2019. The Condition Use Permit was for the Initial Study and Environmental Analysis – Mitigated Negative Declaration (CEQA Document) for the project. The Contractor is to adhere to the Condition Use Permit requirements. The Condition Use Permit and Initial Study and Environmental Analysis is attached these Special Conditions as **Appendix C**.

An Environmental Assessment Determinations and Compliance Findings for U.S. Department of Housing and Urban Development (HUD) assisted Projects (NEPA Document) was prepared per 24 Code Federal Regulations (CFR) Part 58 for this project. The Environmental Assessment is attached to these Special Conditions as **Appendix D**.

It is the responsibility of the Contractor to comply with the CEQA and NEPA documents mitigation requirements during the project construction period.

**END SPECIAL CONDITION SECTION 10**

## 11. Stormwater Pollution Prevention Plan

The soil disturbance area resulted by the construction of the project will be more than 1 acre. A Stormwater Pollution Prevention Plan (SWPPP) was prepared during the project design period as required by the Construction Stormwater General Permit for construction activities. A SWPPP was designed and provided as part of this project. The SWPPP is attached to these Special Conditions as **Appendix E**.

The contractor shall be responsible for the geotechnical inspections, observations, and testing required for construction of this project, as is confirmed in Technical Specification Section 02200. The inspection, observation, and testing requirements are called out in the Geotechnical Report, Improvement Plans and Technical Specifications.

The contractor shall update and implement the SWPPP. The contractor shall have a Qualified SWPPP Developer (QSD) to update the SWPPP that is attached to this Special Conditions. The contractor shall engage a Qualified SWPPP Practitioner (QSP) for site inspection and reporting services. The QSD / QSP shall assist the County of Imperial (Owner) in obtaining a Waste Discharge Identification Number (WDID). The QSD / QSP shall assist the County of Imperial in filing daily, quarterly, and annual reports, filing the Notice of Termination (NOT) at the project conclusion and all other required SWPPP documents through the Storm Water Multi Application and Report Tracking System (SMARTS). The County of Imperial shall pay for all SWPPP and SMARTS filing fees. The contractor shall pay for all services of the QSD and QSP throughout the project duration.

**END SPECIAL CONDITION SECTION 11**

## 12. Business License

The Contractor and Subcontractors performing work on this project shall obtain a business license from the County of Imperial. The Contractor and Subcontractors shall contact the County Treasurer – Tax Collector’s office regarding the application process and fees. The Contractor and Subcontractor shall include the business license costs as part of mobilization.

For information the County of Imperial Treasurer – Tax Collector office can be reached at (442) 265-1250, or the following link:

[Contact US – Treasurer – Tax Collector \(imperialcounty.org\)](http://imperialcounty.org)

**END SPECIAL CONDITION SECTION 12**



**Appendix A – Monument Preservation Forms**



County of Imperial  
 Department of Public Works  
 155 S 11th Street  
 El Centro, CA 92243  
 (442) 265-1818

# Monument Preservation Report

## PRE-CONSTRUCTION

FORM  
 MPR-01  
 April 2021

County of Imperial Permit Number/Project Name \_\_\_\_\_

PRIOR TO PERMIT ISSUANCE, THE PERMITTEE SHALL RETAIN THE SERVICE OF A PROFESSIONAL LAND SURVEYOR (OR CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING) WHO WILL BE RESPONSIBLE FOR MONUMENT PRESERVATION AND WHO SHALL PROVIDE A CORNER RECORD (OR RECORD OF SURVEY) TO THE COUNTY SURVEYOR AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS' ACT, IF APPLICABLE. THE PERMITTEE IS RESPONSIBLE FOR THE COST OF RESTORING, OR REPLACING ALL SURVEY MONUMENTS THAT ARE DISTURBED, OR DESTROYED BY CONSTRUCTION.

(REFERENCE SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE)

\*\*\*\*\* **THIS FORM TO BE COMPLETED BY A PERSON AUTHORIZED TO PRACTICE LAND SURVEYING** \*\*\*\*\*

THE TYPE OF CONSTRUCTION PROPOSED WILL NOT AFFECT ANY SURVEY MONUMENTS.  
 (This box is checked for projects that are proposing no demolition, trenching, excavation, surfacing, etc.)

NAME	P.L.S./R.C.E.	SIGNATURE	DATE	(SEAL)
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THE TYPE OF CONSTRUCTION MAY AFFECT SURVEY MONUMENTS.  
 (This box is checked for projects that are proposing demolition, trenching, excavation, surfacing, etc.)

I HAVE INSPECTED THE SITE(S) AND: (check all that apply) DATE OF INSPECTION: \_\_\_\_\_

- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK WHICH I DETERMINED MAY BE DISTURBED OR DESTROYED. **(A corner record or record of survey is required.)** The found monument(s) and/or corner accessory(ies) were referenced and pre-construction corner record(s) (or record(s) of survey) showing the references has been filed with the County Surveyor for the project site(s). The filed corner record(s) (or record(s) of survey) is attached hereto. Also attached, (if not documented on the corner record(s) (or record(s) of survey)) is a sketch/diagram showing locations of monuments that were searched for and not found. I have placed "S.N.F." on the sketch/diagram for each monument and/or corner accessory that was not found. Photos may also be included.
- NO MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK. **(No corner record or record of survey is required.)** Attached is a sketch/diagram showing the limits of work and its relationship to the locations of any monument and/or corner accessory searched for and not found. I have placed "S.N.F." on the sketch/diagram for each monument and/or corner accessory not found. Photos may also be included.
- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND OUTSIDE THE LIMITS OF WORK WHICH I DETERMINED WILL REMAIN PROTECTED IN PLACE. **(No corner record or record of survey is required.)** Attached is a sketch/diagram of the work limits and its relationship to the found monuments. Photos may also be included.
- MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE FOUND WITHIN THE LIMITS OF WORK WHICH I DETERMINED MAY BE DISTURBED OR DESTROYED, HOWEVER AN EXISTING CORNER RECORD (OR RECORD OF SURVEY) WHICH SHOWS SUFFICIENT REFERENCES HAS ALREADY BEEN FILED AND THERE IS NO DISCREPANCY ON THE FILED CORNER RECORD (OR RECORD OF SURVEY).

SOURCE(S) OF SURVEY DATA CONSULTED: (Final Maps, Parcel Maps, Records of Survey, private field notes, etc.)

FILED CORNER RECORD# \_\_\_\_\_ OR FILED RECORD OF SURVEY# \_\_\_\_\_

NAME	P.L.S./R.C.E.	SIGNATURE	DATE	(SEAL)
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County of Imperial  
 Department of Public Works  
 155 S 11th Street  
 El Centro, CA 92243  
 (442) 265-1818

# Monument Preservation Report

## POST-CONSTRUCTION

FORM  
 MPR-02  
 April 2021

County of Imperial Permit Number/Project Name \_\_\_\_\_

PRIOR TO ISSUING A NOTICE OF COMPLETION FOR PERMITTED CONSTRUCTION, THE PERMITTEE SHALL RETAIN THE SERVICE OF A PROFESSIONAL LAND SURVEYOR (OR CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING) WHO WILL BE RESPONSIBLE FOR MONUMENT RESTORATION AND WHO SHALL PROVIDE A CORNER RECORD (OR RECORD OF SURVEY) TO THE COUNTY SURVEYOR AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS' ACT, IF APPLICABLE. THE PERMITTEE IS RESPONSIBLE FOR THE COST OF RESTORING, OR REPLACING ALL SURVEY MONUMENTS THAT ARE DISTURBED, OR DESTROYED BY CONSTRUCTION.

(REFERENCE SECTION 8771 OF THE CALIFORNIA BUSINESS AND PROFESSIONS CODE)

\*\*\*\*\* **THIS FORM TO BE COMPLETED BY A PERSON AUTHORIZED TO PRACTICE LAND SURVEYING** \*\*\*\*\*

MONUMENTS AND/OR CORNER ACCESSORY(IES) WERE PROTECTED IN PLACE AND THE PERMITTED CONSTRUCTION DID NOT DISTURB OR DESTROY ANY SURVEY MONUMENTS AND/OR CORNER ACCESSORY(IES).

\_\_\_\_\_  
 NAME                      P.L.S./R.C.E.                      SIGNATURE                      DATE                      (SEAL)

MONUMENT(S) AND/OR CORNER ACCESSORY(IES) WERE DISTURBED AND/OR DESTROYED DURING THE PERMITTED CONSTRUCTION. A new monument(s) was set in the surface of the new construction or a witness monument(s) was set to perpetuate the original location of the disturbed or destroyed monument(s) and a post-construction corner record or a record of survey was filed in the office of the County Surveyor. (New corner accessory(ies) may also be required.)

FILED CORNER RECORD# \_\_\_\_\_ OR FILED RECORD OF SURVEY# \_\_\_\_\_

\_\_\_\_\_  
 NAME                      P.L.S./R.C.E.                      SIGNATURE                      DATE                      (SEAL)

**Appendix B – Geotechnical Report**

## Geotechnical Report

# Niland WWTP & Collection System Improvements

## 125 West Alcott Road

### Niland, California 92257

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Prepared for:

**The Holt Group**  
1601 N. Imperial Avenue  
El Centro, CA 92243



---

Prepared by:



**Landmark Consultants, Inc.**  
780 N. 4<sup>th</sup> Street  
El Centro, CA 92243  
(760) 337-1100

**January 2020**

January 21, 2020

Mr. Jack Holt, PE  
The Holt Group  
1601 N. Imperial Avenue  
El Centro, CA 92243

**Geotechnical Report**  
**Niland WWTP & Collection System Improvements**  
**125 West Alcott Road**  
**Niland, California 92257**  
**LCI Report No. LE19176**

Dear Mr. Holt:

This draft geotechnical report is provided for design and construction of the Wastewater Treatment Plant & Collection System Improvements in Niland, California. The WWTP will be improved with installation of a lift station which will discharge to three (3) new 10-acre evaporation/infiltration ponds. The wastewater collection system will be improved with new pipelines to be installed Imperial Irrigation District canal and drains and a new crossing below State Hwy 111. Our geotechnical exploration was conducted in response to your request for our services. The enclosed report describes our soil engineering site evaluation and presents our professional opinions regarding geotechnical conditions at the site to be considered in the design and construction of the project.

Based on the geotechnical conditions encountered at the points of exploration, the project site appears suitable for the proposed construction provided the professional opinions contained in this report are considered in the design and construction of this project.

We appreciate the opportunity to provide our findings and professional opinions regarding geotechnical conditions at the site. Please provide our office with a set of the foundation plans and civil plans for review to insure that the geotechnical site constraints have been included in the design documents. If you have any questions or comments regarding our findings, please call our office at (760) 370-3000.

Respectfully Submitted,  
**Landmark Consultants, Inc.**



Jeffrey O. Lyon, PE  
CEO/Principal Engineer

Peter E. LaBrucherie, PE  
Principal Engineer



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## EXECUTIVE SUMMARY

This executive summary presents *selected* elements of our findings and professional opinions. This summary *may not* present all details needed for the proper application of our findings and professional opinions. Our findings, professional opinions, and application options are *best related through reading the full report*, and are best evaluated with the active participation of the engineer of record who developed them. The findings of this study are summarized below:

- The results of the field exploration conducted at the proposed effluent disposal evaporation/infiltration ponds site indicate that the ponds are underlain by 10 feet of stiff to hard silty clay to fat clay (CL-CH) with interbedded silty sand layers at various depths across the site. The insitu clays at a depth of about 1 to 2 feet below the existing native grade have measured infiltration rates of  $4.66 \times 10^{-5}$  to  $2.12 \times 10^{-6}$  cm/sec (Double-Ring Infiltrometer Test- ASTM D3385).
- The embankment pond bottom and slopes are not planned to be lined with concrete or a HDPE liner. The slopes should be constructed no steeper than 2:1 (interior) and 3:1 (exterior) with a minimum crown width of 20 feet. However, flatter slopes may be considered to retard rain or wave erosion and permit maintenance. Estimated shrinkage during earthwork: 10 to 15%.
- Clay soils (CL) of high to very high expansion (EI = 91 to >130) predominate the near surface soils at the project site.
- Foundation designs for thin slabs on grade should mitigate expansive soil conditions by either the removal and replacement of the upper 4.0 feet of clay soils with non-expansive soil or design of foundations to resist expansive forces such as flat plate structural mats, grade-beam stiffened of floor slabs, or post-tensioned floor slabs. A combination of the methods described above may also be used.
- Design soil bearing pressure = 1,500 psf. Differential movement of 1.0 to 2.0 inches can be expected for slab on grade foundations placed on clay soils.
- The native soils are aggressive to concrete and steel. Concrete mixes for concrete placed in contact with native soils shall have a maximum water cement ratio of 0.45 and a minimum compressive strength of 4,500 psi (minimum of 6 sacks Type V cement per cubic yard).
- All reinforcing bars, anchor bolts and hold down bolts shall have a minimum concrete cover of 4.0 inches unless epoxy coated (ASTM D3963/A934). Hold-down straps at the foundation perimeter and pressurized water lines below or within the foundations are not allowed.

## Section 1

**INTRODUCTION****1.1 Project Description**

This report presents the findings of our geotechnical exploration and soil testing for the proposed sewer lift station and effluent disposal evaporation/infiltration ponds at the Niland Wastewater Treatment Plant located on Alcott Road southwest of Niland, California (See Vicinity Map, Plate A-1). The proposed development will consist of constructing three (3) new 10-acre evaporation ponds and a sewer lift station. A site plan for the proposed improvements was provided by The Holt Group.

The proposed new sewer lift station will consist of approximately 6-foot diameter reinforced concrete pipe (RCP) or precast manhole, founded approximately 15 feet below existing grade elevation. The slab placed to the side of the wet well for pumps and controls will be supported on shallow spread or continuous footings and the wet well will be supported on a mat foundation.

**1.2 Purpose and Scope of Work**

The purpose of this geotechnical study was to investigate the subsurface soil at selected locations within the site for evaluation of physical/engineering properties during seismic events. Professional opinions were developed from field and laboratory test data and are provided in this report regarding geotechnical conditions at this site and the effect on design and construction. The scope of our services consisted of the following:

- ▶ Field exploration and in-situ testing of the site soils at selected locations and depths.
- ▶ Laboratory testing for physical and/or chemical properties of selected samples.
- ▶ Review of the available literature and publications pertaining to local geology, faulting, and seismicity.
- ▶ Engineering analysis and evaluation of the data collected.
- ▶ Preparation of this report presenting our findings and professional opinions regarding the geotechnical aspects of project design and construction.
- ▶ In-situ testing of soil infiltration rates at the three (3) pond locations.

This report addresses the following geotechnical parameters:

- ▶ Subsurface soil and groundwater conditions
- ▶ Site geology, regional faulting and seismicity, near source factors, and site seismic accelerations
- ▶ Expansive soil and methods of mitigation
- ▶ Aggressive soil conditions to metals and concrete
- ▶ Groundwater Analysis (RWQCB Standards)
- ▶ Soil infiltration rates of the native soil for sewage evaporation ponds

Professional opinions with regard to the above parameters are provided for the following:

- ▶ Site grading and earthwork
- ▶ Allowable soil bearing pressures and estimated settlements
- ▶ Concrete slabs-on-grade
- ▶ Evaporation pond earthen embankments
- ▶ Lateral earth pressures
- ▶ Excavation conditions and buried utility installations
- ▶ Mitigation of the potential effects of salt concentrations in native soil to concrete mixes and steel reinforcement
- ▶ Seismic design parameters
- ▶ All weather road structural sections

Our scope of work for this report did not include an evaluation of the site for liquefaction during earthquakes or for the presence of environmentally hazardous materials or conditions, storm water infiltration, groundwater mounding, or landscape suitability of the soil.

### **1.3 Authorization**

James G. Holt, PE of The Holt Group, Inc. provided authorization by written agreement to proceed with our work on October 11, 2019. We conducted our work in general accordance with our written proposal dated October 8, 2019.

## Section 2

**METHODS OF INVESTIGATION****2.1 Field Exploration**

Subsurface exploration was performed on November 7, 2019 by using a backhoe to excavate six (6) test pits to an approximate depth of 10 feet below the existing ground surface. The test pit locations are shown on the Site and Exploration Plan (Plate A-2). Bulk samples were obtained at selected depths in the test pits. A nuclear densometer (ASTM D2922) was used to evaluate in-situ densities and natural moisture content at selected depths in the upper 3 feet of the backhoe pits. The test pits were located by taped or paced measurements and should be considered approximate.

After logging and sampling the soil, the exploratory test pits were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill. The backhoe pits shall be located during rough grading of the site to properly recompact the backfill.

A professional engineer maintained logs of the test pits during exploration. The logs were edited in final form after a review of retrieved samples from the field and laboratory data. The test pit logs are presented on Plates B-1 through B-6 in Appendix B. Soils encountered in the test pits were classified according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488.

Subsurface exploration was also performed on November 8, 2019 using 2R Drilling of Ontario, California to advance one (1) boring to a depth of 30 feet below existing ground surface at the proposed lift station site. The boring was advanced with a truck-mounted, CME 75 drill rig using 8-inch diameter, hollow-stem, continuous-flight augers. The approximate boring location was established in the field and plotted on the site map by sighting to discernible site features. The boring location is shown on the Site and Exploration Plan (Plate A-2).

A professional engineer observed the drilling operations and maintained logs of the soil encountered with sampling depths. Soils were classified during drilling according to the Unified Soil Classification System using the visual-manual procedure in accordance with ASTM D2488. Relatively undisturbed and bulk samples of the subsurface materials were obtained at selected intervals. The relatively undisturbed soil samples were retrieved using a 3-inch OD Modified

California Split-Barrel (ring) sampler lined with 6-inch stainless-steel sleeves. In addition, Standard Penetration Tests (SPT) were performed in accordance with a 2-inch diameter split-spoon sampler in accordance with ASTM D1586 and ASTM D6066. The samples were obtained by driving the samplers ahead of the auger tip at selected depths using a 140-pound CME automatic hammer with a 30-inch drop. The number of blows required to drive the samplers the last 12 inches of an 18-inch drive depth into the soil is recorded on the boring logs as “blows per foot”. Blow counts (N values) reported on the boring logs represent the field blow counts. No corrections have been applied to the blow counts shown on the boring logs for effects of overburden pressure, automatic hammer drive energy, drill rod lengths, liners, and sampler diameter. Pocket penetrometer readings were also obtained to evaluate the stiffness of cohesive soils retrieved from sampler barrels.

After logging and sampling the soil, the exploratory borings were backfilled with the excavated material. The backfill was loosely placed and was not compacted to the requirements specified for engineered fill.

The subsurface boring log is presented on Plate B-7 in Appendix B. A key to the logs symbols is presented on Plate B-8. The stratification lines shown on the subsurface logs represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

## 2.2 Laboratory Testing

Laboratory tests were conducted on selected bulk (auger cuttings or excavated soil) and relatively undisturbed soil samples obtained from the soil borings and test pits to aid in classification and evaluation of selected engineering properties of the site soils. The tests were conducted in general conformance to the procedures of the American Society for Testing and Materials (ASTM) or other standardized methods as referenced below. The laboratory testing program consisted of the following tests:

- ▶ Plasticity Index (ASTM D4318)
- ▶ Particle Size Analyses (ASTM D422)
- ▶ Unit Dry Densities (ASTM D2937)
- ▶ Moisture Contents (ASTM D2216)
- ▶ Moisture-Density Relationship (ASTM D1557)

- ▶ Chemical Analyses (soluble sulfates & chlorides, pH, and resistivity) (Caltrans Methods)

The laboratory test results are presented on the subsurface logs (Appendix B) and in Appendix C.

Engineering parameters of soil strength, compressibility and relative density utilized for developing design criteria provided within this report were obtained from the field and laboratory testing program.

## Section 3

**DISCUSSION****3.1 Site Conditions**

The proposed evaporation ponds site is vacant, sloping about 9 feet to the southwest, with scattered vegetation covering the site. The proposed site for the evaporation ponds was previously in agricultural production but has been fallowed for a number of years.

Adjacent properties are flat-lying and are approximately at the same elevation with this site.

The project site lies at an elevation of approximately 179 feet below sea level (northeast corner) to 189 feet below MSL (southwest corner). These elevations correspond to Elev. 821 to 811 (local IID datum) in the Imperial Valley region of the California low desert. The surrounding properties lie on terrain which is flat (planar), part of a large agricultural valley, which was previously an ancient lake bed covered with fresh water to an elevation of 43± feet above MSL. Annual rainfall in this arid region is less than 3 inches per year with some flash flooding from heavy rainfalls on the alluvial plain of the Chocolate Mountains (east of Niland). This desert region has four months of average summertime temperatures above 100 °F. Winter temperatures are mild, seldom reaching freezing.

**3.2 Geologic Setting**

The project site is located in the Salton Trough region of the Colorado Desert physiographic province of southeastern California. The Salton Trough is a topographic and geologic structural depression resulting extending from the San Geronio Pass to the Gulf of California (Norris & Webb, 1990). The Salton Trough is bounded on the northeast by the San Andreas fault and Chocolate Mountains and the southwest by the Peninsular Range and faults of the San Jacinto Fault Zone. The Salton Trough represents the northward extension of the Gulf of California, containing both marine and non-marine sediments deposited since the Miocene Epoch (Morton, 1977). Tectonic activity that formed the trough continues at a high rate as evidenced by deformed young sedimentary deposits and high levels of seismicity. Figure 1 shows the location of the site in relation to regional faults and physiographic features.

The Imperial Valley is directly underlain by lacustrine deposits, which consist of interbedded lenticular and tabular silt, sand, and clay. The Late Pleistocene to Holocene (present) lake deposits are probably less than 100 feet thick and derived from periodic flooding of the Colorado River which intermittently formed a fresh water lake (Lake Cahuilla). Older deposits consist of Miocene to Pleistocene non-marine and marine sediments deposited during intrusions of the Gulf of California. Basement rock consisting of Mesozoic granite and Paleozoic metamorphic rocks are estimated to exist at depths between 15,000 - 20,000 feet.

### **3.3 Subsurface Soil**

The UC Davis California Soil Resource Lab “SoilWeb Earth” computer application (UC Davis, 2019) for Google Earth indicates that surficial deposits at the project site consist predominantly of silty clay loams overlying fine sands of the Imperial soil group (see Plate A-3). These loams are formed in sediment and alluvium of mixed origin (Colorado River overflows and fresh-water lake-bed sediments).

The subsurface soils encountered during the field exploration conducted on November 7<sup>th</sup> and 8<sup>th</sup> 2019 consist of silty clays and clays with some interbedded silty sand layers. The subsurface logs (Plates B-1 through B-7) depict the stratigraphic relationships of the subsurface soil encountered at the boring and test pit locations. Variations in subsurface stratigraphy may occur between the points of exploration. The stratification lines shown on the subsurface log represent the approximate boundaries between the various strata. However, the transition from one stratum to another may be gradual over some range of depth.

Blocky fractures from atmospheric drying were observed in the clays to a depth of 2 feet below ground surface.

The native surface clays likely exhibit high to very high swell potential (Expansion Index, EI = 91 to >130) when correlated to Plasticity Index tests (ASTM D4318) performed on the native soils.

The clay is expansive when wetted and can shrink with moisture loss (drying). Development of building foundations, concrete flatwork, and asphaltic concrete pavements should include provisions for mitigating potential swelling forces and reduction in soil strength, which can occur from saturation of the soil. Causes for soil saturation include landscape irrigation, broken utility



lines, or capillary rise in moisture upon sealing the ground surface to evaporation. Moisture losses can occur with lack of landscape watering, close proximity of structures to downslopes and root system moisture extraction from deep rooted shrubs and trees placed near the foundations. The design structural engineer (foundations) should consider the effects of non-uniform moisture conditions around the entire foundation when selecting design criteria for the foundations. Typical measures used for similar projects to remediate expansive soil include:

- ▶ Replacement of expansive clays (4 feet) with non-expansive sands or silts.
- ▶ Moisture conditioning subgrade soils to a minimum of 5% above optimum moisture (ASTM D1557) within the drying zone of surface soils.
- ▶ Capping clay soil with a non-expansive sand layer of sufficient thickness (4 feet minimum) to reduce the effects of soil shrink/swell.
- ▶ Design of foundations that are resistant to shrink/swell forces of clay soil.
- ▶ A combination of the methods described above

**3.4 Groundwater Monitoring Well Installation**

Nine (9) 2-inch diameter PVC temporary piezometers were installed at the locations shown on the Site and Exploration Plan (Plate A-2). Piezometers P-1 thru P-8 were installed to depths of about 15 feet around the three proposed evaporation ponds and at about 30 feet below ground surface (B-9 ) at the proposed sewer lift station.

Groundwater was encountered in the test pits at a depth of 7 feet during the time of exploration. Groundwater was also measured in the nine (9) piezometers on December 19, 2019, see table below.

P-1	P-2	P-3	P-4	P-5	P-6	P-7	P-8	P-9
7.0 ft.	6.9 ft	6.3 ft.	9.0 ft.	7.0 ft.	11.8 ft.	8.3 ft.	8.5 ft.	6.6 ft.

There is uncertainty in the accuracy of short-term water level measurements, particularly in fine-grained soil. Groundwater levels may fluctuate with precipitation, irrigation of adjacent properties, drainage, and site grading. The referenced groundwater level should not be interpreted to represent an accurate or permanent condition. Our work scope did not include a groundwater surface mounding study.

Subsurface agricultural tile drainage pipelines (4-inch diameter plastic or clay perforated pipelines encapsulated by sand/gravel envelope) exist at estimated depths of 5.5 to 6.5 feet below this site and are used to remove salts accumulating from agricultural irrigation and crop production. Abandoning and plugging the subsurface drainage pipelines can allow groundwater levels to rise variably across the site. Cutting the subsurface tile drain pipelines with utility trenches will likely result in some localized trench flooding. Base line collectors should be crushed in-place and trench backfill compacted (85-90%). The 4-inch lateral pipeline drains are not required to be removed or crushed in-place. The pipelines should be plugged. A copy of the tile drainage system plat will be provided by **The Holt Group from Imperial Irrigation District records and is attached in Appendix A.**

### **3.5 Groundwater Analysis**

**At the request of the Holt Group, groundwater samples were obtained from wells P-2, P-3, P-6 and P-7 for chemical analysis. The samples were collected using a disposable bailer and stored in properly preserved, laboratory-provided containers. After collection, the groundwater samples were stored in an ice-chilled cooler for transport to a Cal-EPA certified analytical laboratory. The groundwater samples were analyzed in the laboratory for this sampling event for the following:**

- **Total Dissolved Solids (TDS) by Standard Method SM 2540C**
- **pH, Chloride, Fluoride, Sulfate by Standard Method SM 4500**
- **Nitrate, Nitrite, Ammonia by Standard Method SM 4500**
- **Calcium, Sodium, Potassium by EPA Method 200.7**
- **Total petroleum hydrocarbons (TPH) by EPA Method 8015B**
- **Oil and Grease by EPA Method 1664A**
- **BOD by Standard Method SM 5210-B**
- **Total Phosphorous by Standard Method SM 4500**
- **Fecal Coliform by Standard Method SM 9221-E**

The groundwater samples were delivered under chain of custody protocol to Enviro—Chem, Inc. in Pomona, California on December 19, 2019 for laboratory analysis of the above constituents. Total Phosphorous (SM4500), BOD, (SM 5210-B) and Fecal Coliform (SM 9221-E) analyses were conducted by Enthalpy Analytical, LLC under sub-agreement with Enviro—Chem. Enviro—Chem is accredited by the State Health Department in California. Enviro—Chem provided a detailed report of the analytical results and Quality Control/Quality Assurance results after completion of the testing procedures. The analytical reports provided by the laboratory are provided in Appendix D.

Analysis of the groundwater at the project site indicated non-detectable levels of petroleum hydrocarbons, nitrite, Oil & Grease and BOD. The groundwater has high total dissolved solids (TDS) concentrations (6,210 to 22,200 mg/L) and is of non-beneficial use (brackish) in the Niland area. pH levels ranged from 6.5 to 6.8. Detectable levels of Fecal Coliform are shown below in MPN/100ml (most probable number).

<u>Monitoring Well</u>	<u>Sample ID</u>	<u>Fecal Coliform</u>
P-6	#1	< 1.8 MPN/100ml
P-7	#2	>1600 MPN/100ml
P-2	#3	3.7 MPN/100ml
P-3	#4	<1.8 MPN/100ml

Detectable levels of nitrate were found in one (1) of the four (4) samples. Detectable levels of Total Phosphorous were found in three (3) of the four (4) samples. Detectable levels of ammonia, chloride, fluoride, sulfate, calcium, sodium and potassium were found in all four (4) samples. A summary of the test results are provided in Appendix D for the four monitoring wells sampled.

### 3.6 Infiltration Testing

Double-Ring Infiltration (DRI) tests were conducted in general accordance to the ASTM D3385 test procedure at two (2) locations within each pond (Plate A-5). The DRI test units were installed at a depth of 2 feet below existing ground surface within the proposed pond areas. Prior to conducting infiltration test readings, the water level in the outer and inner ring were checked and adjusted to maintain a minimum constant head of 6 inches over the bottom ground surface.

The soils below the test locations consisted of predominantly clay at T-1, T-2 and T-3. The measured infiltration rates of the soils at the test locations are tabulated below:

Test No.	Location	Infiltration Rate
T-1	West pond	0.100 in/hr (7.06E-5 cm/sec)
T-2	Middle pond	0.003 in/hr (2.12E-6 cm/sec)
T-3	East pond	0.005 in/hr (3.53E-6 cm/sec)

Infiltration rates were determined in uncompacted native soil. The measured infiltration rate is applicable for clear water sources and appropriate factors of safety should be used in applying the field measured rate to infiltration basin designs.

### 3.7 Faulting

The project site is located in the seismically active Imperial Valley of southern California with numerous mapped faults of the San Andreas Fault System traversing the region. The San Andreas Fault System is comprised of the San Andreas, San Jacinto, and Elsinore Fault Zones in southern California. The Imperial fault represents a transition from the more continuous San Andreas fault to a more nearly echelon pattern characteristic of the faults under the Gulf of California (USGS, 1990). We have performed a computer-aided search of known faults or seismic zones that lie within a 43 mile (69 kilometer) radius of the project site (Table 1).

A fault map illustrating known active faults relative to the site is presented on Figure 1, *Regional Fault Map*. Figure 2 shows the project site in relation to local faults. The criterion for fault classification adopted by the California Geological Survey defines Earthquake Fault Zones along Holocene-active or pre-Holocene faults (CGS, 2019b). Earthquake Fault Zones are regulatory zones that address the hazard of surface fault rupture. A Holocene-active fault is one that has ruptured during Holocene time (within the last 11,700 years). A pre-Holocene fault is a fault that has not ruptured in the last 11,700 years. Pre-Holocene faults may still be capable of surface rupture in the future, but are not regulated by the Alquist-Priolo Act (AP).

Review of the current Earthquake Fault Zone maps (CGS, 2019a) indicates that the nearest zoned fault is the Elmore Ranch fault located approximately 7.7 miles southwest of the project site.

The project site lies within the Brawley Seismic Zone (BSZ), a pull-apart basin between the southern terminus of the San Andreas fault and the northern trace of the Imperial fault. The BSZ is composed of numerous cross-cutting high angle normal faults. The BSZ extends northward beyond the termination of the mapped Imperial/Brawley faults to beneath the Salton Sea, where it terminates upon intersecting the San Andreas fault near Bombay Beach. The Brawley Seismic Zone was the source of the 1981 5.9Mw Westmorland earthquake sequence that involved activity on at least seven distinct fault planes within the zone. The faults in the Brawley Seismic Zone are considered to be short enough that earthquakes much larger than 6-6.5Mw are unlikely. The California Geological Survey considers the Brawley Seismic Zone to have a maximum magnitude of 6.4Mw, with a very short 24-year average return interval, and a geologic slip rate of 25 mm/year (CDMG, 1996).

### 3.8 General Ground Motion Analysis

The project site is considered likely to be subjected to moderate to strong ground motion from earthquakes in the region. Ground motions are dependent primarily on the earthquake magnitude and distance to the seismogenic (rupture) zone. Acceleration magnitudes also are dependent upon attenuation by rock and soil deposits, direction of rupture and type of fault; therefore, ground motions may vary considerably in the same general area.

2019 CBC General Ground Motion Parameters: The 2019 CBC general ground motion parameters (effective January 1, 2020) are based on the Risk-Targeted Maximum Considered Earthquake ( $MCE_R$ ). The Structural Engineers Association of California (SEAOC) and Office of Statewide Health Planning and Development (OSHPD) Seismic Design Maps Web Application (SEAOC, 2019) was used to obtain the site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters. **The site has been classified as Site Class D (stiff soil profile).**

The granular soils underlying the project site may liquefy during a strong seismic event resulting in a Site Class F. In accordance with ASCE 7-16, Section 20.3.1, Site Class F, for structures having a fundamental period of vibration less than 0.5 seconds, a site-specific response analysis is not required. Rather, a Site Class is permitted to be determined by standard means. It is anticipated that all proposed structures for the project site have a period less than 0.5 seconds; therefore, a *Site Class D is applicable for site design.*

Design spectral response acceleration parameters are defined as the earthquake ground motions that are two-thirds ( $2/3$ ) of the corresponding  $MCE_R$  ground motions. Design earthquake ground motion parameters are provided in Table 2. **A Risk Category III was determined using Table 1604A.5 and the Seismic Design Category is D since  $S_1$  is less than 0.75g.**

The Maximum Considered Earthquake Geometric Mean ( $MCE_G$ ) peak ground acceleration adjusted for soil site class effects ( $PGA_M$ ) value was obtained from the SEAOC/OSHPD Seismic Design Maps Web Application (SEAOC, 2019) to be used for liquefaction and seismic settlement analysis in accordance with 2019 CBC Section 1803A.5.12 and CGS Note 48 ( $PGA_M = F_{PGA} * PGA$ ). **A  $PGA_M$  value of 0.55g was estimated for the project site.**

### 3.9 Seismic and Other Hazards

- ▶ **Groundshaking.** The primary seismic hazard at the project site is the potential for strong groundshaking during earthquakes along the Elmore, Brawley, and San Andreas faults.
- ▶ **Surface Rupture.** The California Geological Survey (2019b) has established Earthquake Fault Zones in accordance with the 1972 Alquist-Priolo Earthquake Fault Zone Act. The Earthquake Fault Zones consists of boundary zones surrounding well defined, active faults or fault segments. The project site does not lie within an A-P Earthquake Fault Zone; therefore, surface fault rupture is considered to be low at the project site.
- ▶ **Liquefaction and lateral spreading.** Liquefaction is a potential design consideration because of underlying saturated sandy substrata. Although the Imperial Valley has not yet been evaluated for seismic hazards by the California Geological Survey seismic hazards zonation program, liquefaction is well documented in the Imperial Valley after strong seismic events (McCrink, et al, 2011 and Rymer et al, 2011). *The potential for liquefaction at the site was not included in the scope of work for this project.*

#### Other Potential Geologic Hazards.

- ▶ **Landsliding.** The hazard of landsliding is unlikely due to the regional planar topography. No ancient landslides are shown on geologic maps, aerial photographs and topographic maps of the region and no indications of landslides were observed during our site investigation.
- ▶ **Volcanic hazards.** The site is not located proximal to any known volcanically active area and the risk of volcanic hazards is considered low. Obsidian Butte and Red Hill, located at the south end of the Salton Sea approximately 4 miles west of the project site, are small remnants of volcanic domes. The domes erupted about 1,800 to 2,500 years ago (Wright et al, 2015). The subsurface brine fluids around the domes have a high heat flow and are currently being utilized to produce geothermal energy.
- ▶ **Tsunamis and seiches.** Tsunamis are giant ocean waves created by strong underwater seismic events, asteroid impact, or large landslides. Seiches are large waves generated in enclosed bodies of water in response to strong ground shaking. The site is not located near any large bodies of water, so the threat of tsunami, seiches, or other seismically-induced flooding is considered unlikely.
- ▶ **Flooding.** Based on our review of FEMA (2008) FIRM Panel 06025C0725C which encompasses the project site, the project site is located in Flood Zone X, an area determined to be outside the 0.2% annual chance (500-year) floodplain.

- ▶ **Collapsible soils.** Collapsible soil generally consists of dry, loose, low-density material that have the potential collapse and compact (decrease in volume) when subjected to the addition of water or excessive loading. Soils found to be most susceptible to collapse include loess (fine grained wind-blown soils), young alluvium fan deposits in semi-arid to arid climates, debris flow deposits and residual soil deposits. Due to the cohesive nature of the subsurface soils and shallow groundwater, the potential for hydro-collapse of the subsurface soils at this project site is considered very low.
- ▶ **Expansive soils.** In general, much of the near surface soils in the Imperial Valley consist of silty clays and clays which are moderate to highly expansive. The expansive soil conditions are discussed in more detail in Section 3.3.

## Section 4

**DESIGN CRITERIA****4.1 Site Preparation**

Clearing and Grubbing: All surface improvements, debris or vegetation including grass, trees, and weeds on the site at the time of construction should be removed from the construction area. Root balls should be completely excavated. Organic strippings should be stockpiled and not used as engineered fill. All trash, construction debris, concrete slabs, old pavement, landfill, contaminated soil, and buried obstructions such as old foundations and utility lines exposed during rough grading should be traced to the limits of the foreign material by the grading contractor and removed under our supervision. Any excavations resulting from site clearing should be sloped to a bowl shape to the lowest depth of disturbance and backfilled under the observation of the geotechnical engineer's representative.

Mass Grading of Ponds: The three ponds are planned to be stepped in elevation from east to west following the natural topography of the site. The east sides of the ponds will require cuts of about 1.5 feet while the west sides may require fill of about 1.5 feet to achieve elevations of each of the ponds. Ponds site surface soils will also be used in construction of the earthen embankments for the three ponds. The ponds will be filled by the effluent line from the new pump station.

Prior to placing any pond embankment fills, the surface 2.0 feet of soil should be prewetted (minimum of 20% moisture content). Subsequent to prewetting, the surface 12 inches of soil *in pond embankment areas planned for fill soil placement* should be removed, the exposed surface uniformly moisture conditioned to a depth of 8 inches by discing and wetting to a minimum of optimum plus 4% and recompact to a minimum of 90% of ASTM D1557 maximum density. Onsite native clays placed as engineered fill should be uniformly moisture conditioned by discing and wetting or drying to optimum plus 4 to 8% and compacted in 6 inch maximum lifts to a minimum of 90% relative compaction. Clods shall be reduced by discing to a maximum dimension of 1.0 inch prior to being placed as fill.

The site is underlain by tile drain lines at a depth of **approximately 5.5 to 6.0 feet** below ground surface (to be included in Appendix A). Tile lines should be cut and plugged. The pipelines are likely full of water and may temporarily flood excavations if not capped promptly. Base lines (6 to 8 inch diameter) should be located and crushed in-place with the backfill compacted to a



minimum 90% of ASTM D1557 maximum density.

Evaporation Pond Embankments: The native clay soils are considered adequate for engineered embankment fill. The embankment fill should be pulverized/disc'd to less than 3/4 inch maximum clod size, uniformly moisture conditioned to 4 to 8% over optimum, and placed in 6 inch maximum lifts at a minimum of 90% of ASTM D1557 maximum density. The embankment tops should have a minimum of 6 inches of aggregate base material for all weather access over the clay that can become slick during rainfall.

The embankment slopes should be reconstructed no steeper than 2:1 (interior) and 3:1 (exterior) with a minimum crown width of 20 feet. However, flatter interior slopes may be considered to retard erosion and permit maintenance. Embankments should be overbuilt by 6 inches and subsequently cut to the plan line and grade to remove loose material along the slope faces.

Wet Well Backfill: Following completion of concrete placement and vertical shaft placement for the wet well, the remaining excavation area against the wet well may be backfilled with native soil in lifts and compacted to a minimum of 90% of ASTM D1557 maximum dry density at a minimum of optimum moisture.

Small Equipment Pad Preparation: The exposed surface soil within the small equipment mat foundation areas for pumping equipment, generator or transformers should be removed to 18 inches below the bottom of the mat foundations (12 inches or greater thickness) to 2 feet beyond the edges of the foundation. Exposed subgrade should be scarified to a depth of 12 inches, uniformly moisture conditioned to a minimum of 4% to 8% above optimum moisture content, and recompacted to a minimum of 90% of the maximum density determined in accordance with ASTM D1557 methods.

An 18 inch layer of Caltrans Class 2 aggregate base, compacted in maximum 6 inch lifts to at least 95% of ASTM D1557 maximum density at 2% below to 4% above optimum moisture shall be placed over the compacted subgrade prior to placing mat foundations.

Following completion of concrete placement for the mat foundation, the remaining excavation area against the foundation may be backfilled with native soil in 6 inch maximum lifts and compacted to a minimum of 90% of ASTM D1557 maximum dry density at a 4% to 8% above optimum moisture.

Observation and Density Testing: All site preparation and fill placement should be continuously observed and tested by a representative of a qualified geotechnical engineering firm. Full-time observation services during the excavation and scarification process is necessary to detect undesirable materials or conditions and soft areas that may be encountered in the construction area. The geotechnical firm that provides observation and testing during construction shall assume the responsibility of "*geotechnical engineer of record*" and, as such, shall perform additional tests and investigation as necessary to satisfy themselves as to the site conditions and the geotechnical parameters for site development.

Auxiliary Structures Foundation Preparation: Auxiliary structures such as free standing or retaining walls should have footings extended to a minimum of 30 inches below grade. The existing soil beneath the structure foundation prepared in the manner described for the building pad except the preparation needed only to extend 18 inches below and beyond the footing.

## **4.2 Utility Trench Backfill**

Utility Trench Backfill: Trench backfill for utilities should conform to the specifications shown on Plate D-1 (Appendix E), using either Type A, B or C backfill.

**Type A** backfill for HDPE pipe (above groundwater) consists of a 4 to 8 inch bed of  $\frac{3}{8}$ -inch crushed rock below the pipe and pipezone backfill (to 12" above top of pipe) consisting of crusher fines (sand). Sewer pipes (SDR-35), water mains, and stormdrain pipes of other than HDPE pipe may use crusher fines for bedding. The crusher fines shall be compacted to a minimum of 95% of ASTM D1557 maximum density. Pipe deflection should be checked to not exceed 2% of pipe diameter. Native clay/silt soils may be used to backfill the remainder of the trench. Soils used for trench backfill shall be compacted to a minimum of 90% of ASTM D1557 maximum density, except the top 12 inches shall be compacted to 95% (if granular trench backfill).

**Type B** backfill for HDPE pipe (shallow cover) requires 6 inches of  $\frac{3}{8}$ -inch crushed rock as bedding and to springline of the pipe. Thereafter, sand/cement slurry (3 sack cement factor) should be used to 12 inches above the top of the pipe. Native clay and silt soils may be used in the remainder of the trench backfill as specified above.

*Type C* backfill for HDPE pipe (below or partially below groundwater) shall consist of a geotextile filter fabric encapsulating ¾-inch crushed rock. The crushed rock thickness shall be 6 inches below and to the sides of the pipe and shall extend to 12 inches above the top of the pipe. The filter fabric shall cover the trench bottom, sidewalls and over the top of the crushed rock. Native clay and silt soils may be used in the remainder of the trench backfill as specified above.

**Type C backfill must be used in wet soils and below groundwater for all buried utility pipelines. Where pipeline excavation are planned below the ground water surface, dewatering (by well points) is required to at least 24 inches below the trench bottom prior to excavation. Type A backfill may be used in the case of a dewatered trench condition in clay soils only.**

On-site soil free of debris, vegetation, and other deleterious matter may be suitable for use as utility trench backfill above pipezone, but may be difficult to uniformly maintain at specified moistures and compact to the specified densities. Native backfill should only be placed and compacted after encapsulating buried pipes with suitable bedding and pipe envelope material.

The native clay soil may be suitable for use as compacted fill and utility trench backfill. The native soil should be placed in maximum 8 inch lifts (loose) and compacted to a minimum of 90% of ASTM D1557 maximum dry density at 2 to 6% above optimum moisture.

Backfill soil of utility trenches within paved areas should be uniformly moisture conditioned to a minimum of 4% above optimum moisture, placed in layers not more than 6 inches in thickness and mechanically compacted to a minimum of 90% of the ASTM D1557 maximum dry density, except that the top 12 inches shall be compacted to 95% (if granular trench backfill).

### **4.3 Foundations and Settlements**

The lift station may be designed for an allowable soil bearing pressure of 2,500 pounds per square foot (psf) at the base of the station (around 15 feet depth). Footings and equipment foundations which are embedded a minimum of 18 inches into native soil or compacted backfill around the pump wet-well may be designed for an allowable bearing pressure of 1,500 psf. It is suggested that a rigid mat be used for structures placed over wet-well backfill. Horizontal sliding can be resisted with passive earth pressure equivalent to 250 pounds per cubic foot (pcf) of fluid pressure

and a coefficient of friction of 0.25. Groundwater buoyant forces and lateral loads should be considered in the wet well design.

Small Equipment Flat Plate Structural Mats: Structural concrete mat foundations may be designed using an allowable soil bearing pressure of 2,500 psf when the foundation is supported on 18 inches of compacted Class 2 aggregate base. The allowable soil pressure may be increased by one-third for short term loads induced by winds or seismic events. The structural mat shall have a double mat of steel and a minimum thickness of 12 inches. Structural mats may be designed for a modulus of subgrade reaction (Ks) of 200 pci when placed on 18 inches of compacted Class 2 aggregate base. An allowable friction coefficient of 0.35 may also be used at the base of the mat to resist lateral sliding.

Resistance to horizontal loads will be developed by passive earth pressure on the sides of footings and frictional resistance developed along the base of footings. Passive resistance to lateral earth pressure may be calculated using an equivalent fluid pressure of 250 pcf to resist lateral loadings. An allowable friction coefficient of 0.35 may also be used at the base of the footings to resist lateral sliding.

Settlements: Foundation movement under the estimated static (non-seismic) loadings and static site conditions are estimated to not exceed 1 inch with differential movement of about two-thirds of total movement for the loading assumptions stated above when the subgrade preparation guidelines given above are followed. Movement during a maximum considered earthquake seismic event has not been evaluated.

#### **4.4 Slabs-On-Grade**

Structural Concrete: Structural concrete slabs are those slabs (foundations) that underlie structures or covered housekeeping slabs (shades). Concrete slabs and flatwork shall be a minimum of 5 inches thick due to expansive soil conditions. Concrete slab and flatwork reinforcement should consist of chaired rebar slab reinforcement (minimum of No. 4 bars at 16-inch centers, both horizontal directions) placed at slab mid-height to resist drying shrinkage cracking. Slab thickness and steel reinforcement are minimums only and should be verified by the structural engineer/designer knowing the actual project loadings.

All steel components of the foundation system should be protected from corrosion by maintaining a 3-inch minimum concrete cover of densely consolidated concrete at footings (by use of a vibrator).

Control joints should be provided in all concrete slabs-on-grade at a maximum spacing (in feet) of 2 to 3 times the slab thickness (in inches) as recommended by American Concrete Institute (ACI) guidelines. All joints should form approximately square patterns to reduce randomly oriented contraction cracks. Contraction joints in the slabs should be tooled at the time of the pour or sawcut ( $\frac{1}{4}$  of slab depth) within 6 to 8 hours of concrete placement. Construction (cold) joints in foundations and area flatwork should either be thickened butt-joints with dowels or a thickened keyed-joint designed to resist vertical deflection at the joint.

All joints in flatwork should be sealed to prevent moisture, vermin, or foreign material intrusion. Precautions should be taken to prevent curling of slabs in this arid desert region (refer to ACI guidelines).

#### **4.5 Concrete Mixes and Corrosivity**

Selected chemical analyses for corrosivity were conducted on bulk samples of the near surface soil from the project site (Plate C-2). The native soils were found to have S2 (severe) levels of sulfate ion concentration (2,400 ppm). Sulfate ions in high concentrations can attack the cementitious material in concrete, causing weakening of the cement matrix and eventual deterioration by raveling. The following table provides American Concrete Institute (ACI) recommended cement types, water-cement ratio and minimum compressive strengths for concrete in contact with soils:

**Table 4. Concrete Mix Design Criteria due to Soluble Sulfate Exposure**

Sulfate Exposure Class	Water-soluble Sulfate (SO <sub>4</sub> ) in soil, ppm	Cement Type	Maximum Water-Cement Ratio by weight	Minimum Strength f'c (psi)
S0	0-1,000	–	–	–
S1	1,000-2,000	II	0.50	4,000
S2	2,000-20,000	V	0.45	4,500
S3	Over 20,000	V (plus Pozzolon)	0.45	4,500

Note: From ACI 318-14 Table 19.3.1.1 and Table 19.3.2.1

A minimum of 6.0 sacks per cubic yard of concrete (4,500 psi) of Type V Portland Cement with a maximum water/cement ratio of 0.45 (by weight) should be used for concrete placed in contact with native soil on this project (sitework including sidewalks, driveways, housekeeping slabs, and foundations). Admixtures may be required to allow placement of this low water/cement ratio concrete. Thorough concrete consolidation and hard trowel finishes should be used due to the aggressive soil exposure.

The native soil has severe levels of chloride ion concentration (1,360 ppm). Chloride ions can cause corrosion of reinforcing steel, anchor bolts and other buried metallic conduits. Resistivity determinations on the soil indicate very severe potential for metal loss because of electrochemical corrosion processes. Mitigation of the corrosion of steel can be achieved by using steel pipes coated with epoxy corrosion inhibitors, asphaltic and epoxy coatings, cathodic protection or by encapsulating the portion of the pipe lying above groundwater with a minimum of 4 inches of densely consolidated concrete. ***No metallic water pipes or conduits should be placed below foundations.***

Foundation designs shall provide a minimum concrete cover of four (4) inches around steel reinforcing or embedded components (anchor bolts, etc.) exposed to native soil or landscape water (to 18 inches above grade). If the 4-inch concrete edge distance cannot be achieved, all embedded steel components (anchor bolts, etc.) shall be epoxy coated for corrosion protection (in accordance with ASTM D3963/A934) or a corrosion inhibitor and a permanent waterproofing membrane shall

be placed along the exterior face of the exterior footings. ***Hold-down straps should not be used at foundation edges due to corrosion of metal at its protrusion from the slab edge.*** Additionally, the concrete should be thoroughly vibrated at footings during placement to decrease the permeability of the concrete.

Exterior foundation faces exposed to native soils (without adjacent mowstrips, sidewalks, or patios) should be coated with a permanent waterproofing membrane to prevent salt migration into concrete.

***Landmark does not practice corrosion engineering. We recommend that a qualified corrosion engineer evaluate the corrosion potential on metal construction materials and concrete at the site to obtain final design recommendations.***

#### **4.6 Excavations**

All site excavations to 4 feet should conform to CalOSHA requirements for Type B soil. The contractor is solely responsible for the safety of workers entering trenches. Temporary excavations with depths of 4 feet or less may be cut nearly vertical for short duration. Excavations deeper than 4 feet will require shoring or slope inclinations in conformance to CAL/OSHA regulations for Type B soil. All permanent slopes should not be steeper than 3:1 to reduce wind and rain erosion. Protected slopes with ground cover may be as steep as 2:1. If excavations are planned below groundwater (about 7.0 feet below ground surface), all excavation slopes should be excavated according to OSHA Standards for Type C soils.

Due to an existing loose silty sand layer encountered between 8 to 19 feet depth, the use of a shoring system should be planned for the pump station wet well installation. Dewatering of the excavation site will be required prior to start of excavation. Dewatering systems should provide adequate filters so that fine silts are not pumped from depth. Pumping of the fine soils can result in area settlement. Dewatering will also be required along the sewer main alignment.

All discussions in this section regarding stable excavation slopes assumes minimal equipment vibration and adequate setback of excavated material and construction equipment from the top of the excavation. We recommended that the minimum setback distance be equal to the depth of excavation and at least 10 feet from the crown of the slope. If excavated materials are stockpiled

adjacent to the excavation, the weight of the material should be considered as a surcharge load for slope stability.

The excavation for the sewer lift station and sewer main will encounter the groundwater table. Therefore, seepage and pumping subgrade conditions should be anticipated. An adequately designed dewatering system (well points) will be required to control groundwater seepage and prevent running ground conditions. The bottom of pump station should be underlain by a minimum of 18 inches of 1.5-inch crushed rock (ASTM C33, size 467) encapsulated in a geotextile filter fabric.

The responsibility for dewatering and the selection and performance of an appropriate system is the contractor's responsibility. The contractor is cautioned to evaluate soil moisture and groundwater conditions at the time of bidding. This report should be made available to dewatering contractors for their initial assessment of the site conditions. However, it is the contractor's own risk to interpret the information contained in this report.

Groundwater was encountered at a depth of 7 feet on November 9, 2019. The contractor is cautioned to evaluate soil moisture and groundwater conditions at the time of bidding.

#### **4.7 Lateral Earth Pressures**

Earth retaining structures, such as retaining walls, should be designed to resist the soil pressure imposed by the retained soil mass. Walls without granular drained backfill may be designed for an assumed static earth pressure equivalent to that exerted by a fluid weighing 60 pcf for clays (45 pcf for sands) for unrestrained (active) conditions (able to rotate 0.1% of wall height), and 100 pcf for clays (60 pcf for sands) for restrained (at-rest) conditions. These values should be verified at the actual wall locations during construction.

When applicable (Seismic Design Category D, E or F), retaining wall structures where the backfill is greater than 6 feet high shall be designed in addition to the static loading (active or at-rest condition) with an additional seismic lateral pressure increasing linearly with depth and the resultant acting as a point load at 0.4H above the base of the wall. The term H is the height of the backfill against a retaining wall in feet. The seismic load increment, shall be determined using the following equations for different wall type and backfill conditions:



Basement (restrained) walls with level backfill:  $\Delta K_{ac} = \frac{1}{2}\gamma H^2(0.68 PGAM/g)$

Cantilever (unrestrained) wall with level backfill:  $\Delta K_{ac} = \frac{1}{2}\gamma H^2(0.42 PGAM/g)$

Cantilever (unrestrained) wall with sloping backfill\*:  $\Delta K_{ac} = \frac{1}{2}\gamma H^2(0.70 PGAM/g)$

\*Applicable for sloping backfill that is no steeper than 2:1 (horizontal:vertical).

Where:

$\Delta K_{ac}$  = Seismic Lateral Force (plf) based on seismic pressure

$\gamma$  = 125 pcf

A  $PGAM$  value of 0.55g has been determined for the project site.

H = Height of retained soil (ft)

Surcharge loads should be considered if loads are applied within a zone between the face of the wall and a plane projected behind the wall 45 degrees upward from the base of the wall. The increase in lateral earth pressure acting uniformly against the back of the wall should be taken as 50% of the surcharge load within this zone. Areas of the retaining wall subjected to traffic loads should be designed for a uniform surcharge load equivalent to two feet of native soil.

Walls should be provided with backdrains to reduce the potential for the buildup of hydrostatic pressure. The drainage system should consist of a composite HDPE drainage panel or a 2-foot wide zone of free draining crushed rock placed adjacent to the wall and extending 2/3 the height of the wall. The gravel should be completely enclosed in an approved filter fabric to separate the gravel and backfill soil. A perforated pipe should be placed perforations down at the base of the permeable material at least six inches below finished floor elevations. The pipe should be sloped to drain to an appropriate outlet that is protected against erosion. Walls should be properly waterproofed. The project geotechnical engineer should approve any alternative drain system.

#### **4.8 Seismic Design**

This site is located in the seismically active southern California area and the site structures are subject to strong ground shaking due to potential fault movements along the Elmore Ranch, Hot Springs and San Andreas faults. Engineered design and earthquake-resistant construction are the common solutions to increase safety and development of seismic areas. Designs should comply with the latest edition of the CBC for Site Class D using the seismic coefficients given in Section 3.6 and Table 2 of this report.

#### **4.9 All-weather Roadway Access**

All-weather accessways should consist of 6 inches of Caltrans Class 2 aggregate base (compacted to 90% minimum of ASTM D1557 maximum density) placed over 12 inches of compacted (90% minimum at minimum of 2% above optimum moisture) native clay soil.

## Section 5

**LIMITATIONS AND ADDITIONAL SERVICES****5.1 Limitations**

The findings and professional opinions within this report are based on current information regarding the proposed improvements to the Niland Wastewater Treatment Plant in Niland, California. The conclusions and professional opinions of this report are invalid if:

- ▶ Structural loads change from those stated or the structures are relocated.
- ▶ The Additional Services section of this report is not followed.
- ▶ This report is used for adjacent or other property.
- ▶ Changes of grade or groundwater occur between the issuance of this report and construction other than those anticipated in this report.
- ▶ Any other change that materially alters the project from that proposed at the time this report was prepared.

This report was prepared according to the generally accepted *geotechnical engineering standards of practice* that existed in Imperial County at the time the report was prepared. No express or implied warranties are made in connection with our services.

Findings and professional opinions in this report are based on selected points of field exploration, geologic literature, limited laboratory testing, and our understanding of the proposed project. Our analysis of data and professional opinions presented herein are based on the assumption that soil conditions do not vary significantly from those found at specific exploratory locations. Variations in soil conditions can exist between and beyond the exploration points or groundwater elevations may change. The nature and extend of such variations may not become evident until, during or after construction. If variations are detected, we should immediately be notified as these conditions may require additional studies, consultation, and possible design revisions.

Environmental or hazardous materials evaluations were not performed by Landmark for this project. Landmark will assume no responsibility or liability whatsoever for any claim, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

The client has responsibility to see that all parties to the project including designer, contractor, and subcontractor are made aware of this entire report within a reasonable time from its issuance. This report should be considered invalid for periods after two years from the date of report issuance without a review of the validity of the findings and professional opinions by our firm, because of potential changes in the Geotechnical Engineering Standards of Practice. This report is based upon government regulations in effect at the time of preparation of this report. Future changes or modifications to these regulations may require modification of this report. Land or facility use, on and off-site conditions, regulations, design criteria, procedures, or other factors may change over time, which may require additional work. Any party other than the client who wishes to use this report shall notify Landmark of such intended use. Based on the intended use of the report, Landmark may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Landmark from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold Landmark harmless from any claim or liability associated with such unauthorized use or non-compliance.

***This report contains information that may be useful in the preparation of contract specifications. However, the report is not worded in such a manner that we recommend its use as a construction specification document without proper modification. The use of information contained in this report for bidding purposes should be done at the contractor's option and risk.***

## **5.2 Plan Review**

Landmark Consultants, Inc. should be retained during development of design and construction documents to check that the geotechnical professional opinions are appropriate for the proposed project and that the geotechnical professional opinions are properly interpreted and incorporated into the documents. Landmark should have the opportunity to review the final design plans and specifications for the project prior to the issuance of such for bidding.

Governmental agencies may require review of the plans by the geotechnical engineer of record for compliance to the geotechnical report.

### 5.3 Additional Services

We recommend that Landmark Consultant be retained to provide the tests and observations services during construction. *The geotechnical engineering firm providing such tests and observations shall become the geotechnical engineer of record and assume responsibility for the project.*

*Landmark Consultants, Inc. professional opinions for this site are, to a high degree, dependent upon appropriate quality control of subgrade preparation, fill placement, and embankment construction. Accordingly, the findings and professional opinions in this report are made contingent upon the opportunity for Landmark Consultants to observe grading operations and foundation excavations for the proposed construction.*

*If parties other than Landmark Consultants, Inc. are engaged to provide observation and testing services during construction, such parties must be notified that they will be required to assume complete responsibility as the geotechnical engineer of record for the geotechnical phase of the project by concurring with the professional opinions in this report and/or by providing alternative professional guidance.*

Additional information concerning the scope and cost of these services can be obtained from our office.

## Section 6

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# **TABLES**

**Table 1**  
**Summary of Characteristics of Closest Known Active Faults**

Fault Name	Approximate Distance (miles)	Approximate Distance (km)	Maximum Moment Magnitude (Mw)	Fault Length (km)	Slip Rate (mm/yr)
Elmore Ranch	7.7	12.3	6.6	29 ± 3	1 ± 0.5
Hot Springs *	12.2	19.6			
San Andreas - Coachella	14.3	22.8	7.2	96 ± 10	25 ± 5
Brawley *	19.4	31.1			
Imperial	19.7	31.6	7	62 ± 6	20 ± 5
Superstition Hills	21.9	35.1	6.6	23 ± 2	4 ± 2
Superstition Mountain	25.2	40.4	6.6	24 ± 2	5 ± 3
Rico *	29.4	47.1			
San Jacinto - Borrego	30.3	48.5	6.6	29 ± 3	4 ± 2
Painted Gorge Wash*	32.8	52.4			
San Jacinto - Anza	34.3	54.9	7.2	91 ± 9	12 ± 6
Unnamed 1*	36.4	58.2			
Yuha Well *	36.7	58.7			
Shell Beds	37.1	59.4			
Yuha*	38.3	61.2			
Vista de Anza*	38.5	61.6			
Unnamed 2*	38.6	61.8			
San Jacinto - Coyote Creek	40.3	64.5	6.8	41 ± 4	4 ± 2
Laguna Salada	40.7	65.1	7	67 ± 7	3.5 ± 1.5
Ocotillo*	40.8	65.3			
Elsinore - Coyote Mountain	42.1	67.3	6.8	39 ± 4	4 ± 2
Algodones *	43.6	69.8			

\* Note: Faults not included in CGS database.

**Table 2  
2019 California Building Code (CBC) and ASCE 7-16 Seismic Parameters**

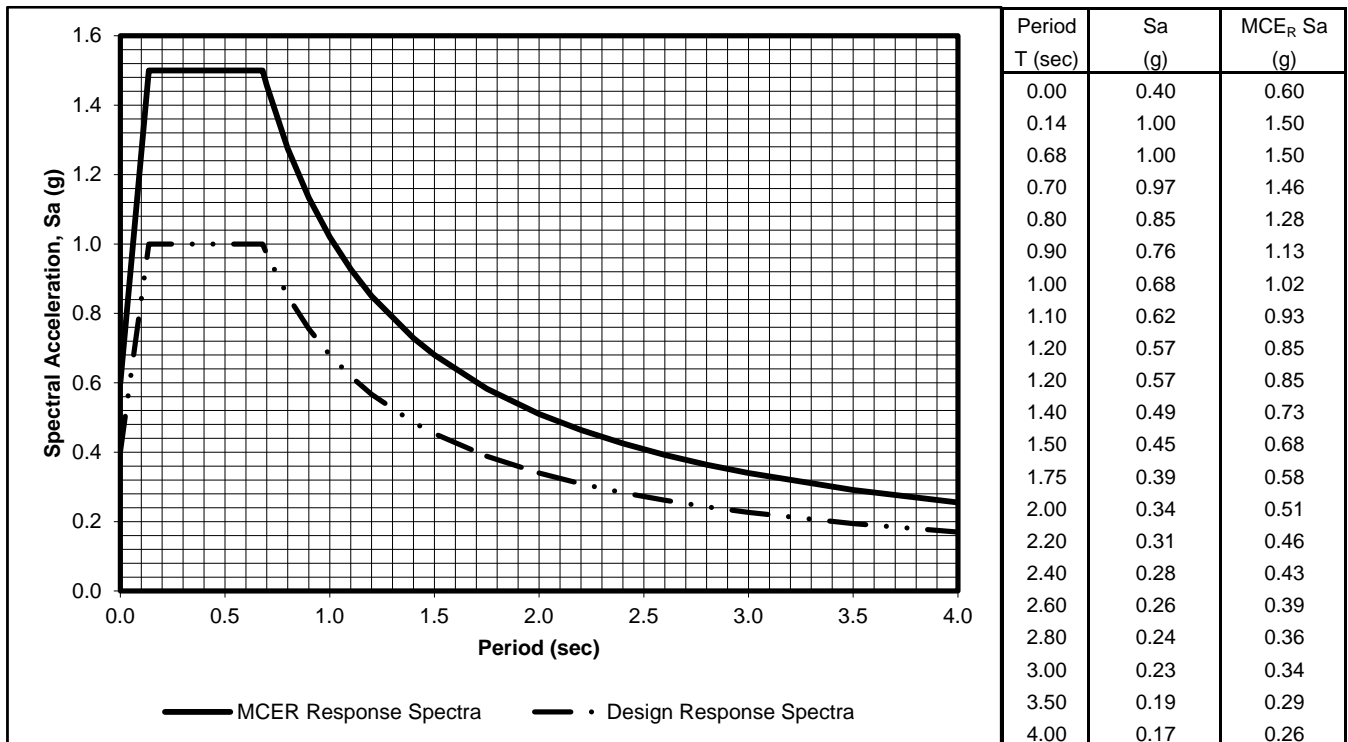
Soil Site Class:	<b>D</b>	<u>ASCE 7-16 Reference</u>
Latitude:	33.2268 N	Table 20.3-1
Longitude:	-115.5272 W	
Risk Category:	III	
Seismic Design Category:	D	

**Maximum Considered Earthquake (MCE) Ground Motion**

Mapped MCE <sub>R</sub> Short Period Spectral Response	<b>S<sub>s</sub></b>	1.500 g	ASCE Figure 22-1
Mapped MCE <sub>R</sub> 1 second Spectral Response	<b>S<sub>1</sub></b>	0.600 g	ASCE Figure 22-2
Short Period (0.2 s) Site Coefficient	<b>F<sub>a</sub></b>	1.00	ASCE Table 11.4-1
Long Period (1.0 s) Site Coefficient	<b>F<sub>v</sub></b>	1.70	ASCE Table 11.4-2
MCE <sub>R</sub> Spectral Response Acceleration Parameter (0.2 s)	<b>S<sub>MS</sub></b>	1.500 g	= F <sub>a</sub> * S <sub>s</sub> ASCE Equation 11.4-1
MCE <sub>R</sub> Spectral Response Acceleration Parameter (1.0 s)	<b>S<sub>M1</sub></b>	1.020 g	= F <sub>v</sub> * S <sub>1</sub> ASCE Equation 11.4-2

**Design Earthquake Ground Motion**

Design Spectral Response Acceleration Parameter (0.2 s)	<b>S<sub>DS</sub></b>	1.000 g	= 2/3*S <sub>MS</sub>	ASCE Equation 11.4-3
Design Spectral Response Acceleration Parameter (1.0 s)	<b>S<sub>D1</sub></b>	0.680 g	= 2/3*S <sub>M1</sub>	ASCE Equation 11.4-4
Risk Coefficient at Short Periods (less than 0.2 s)	<b>C<sub>RS</sub></b>	0.950		ASCE Figure 22-17
Risk Coefficient at Long Periods (greater than 1.0 s)	<b>C<sub>R1</sub></b>	0.922		ASCE Figure 22-18
	<b>T<sub>L</sub></b>	8.00 sec		ASCE Figure 22-12
	<b>T<sub>O</sub></b>	0.14 sec	=0.2*S <sub>D1</sub> /S <sub>DS</sub>	
	<b>T<sub>S</sub></b>	0.68 sec	=S <sub>D1</sub> /S <sub>DS</sub>	
Peak Ground Acceleration	<b>PGA<sub>M</sub></b>	0.55 g		ASCE Equation 11.8-1



# FIGURES



Source: California Geological Survey 2010 Fault Activity Map of California  
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>

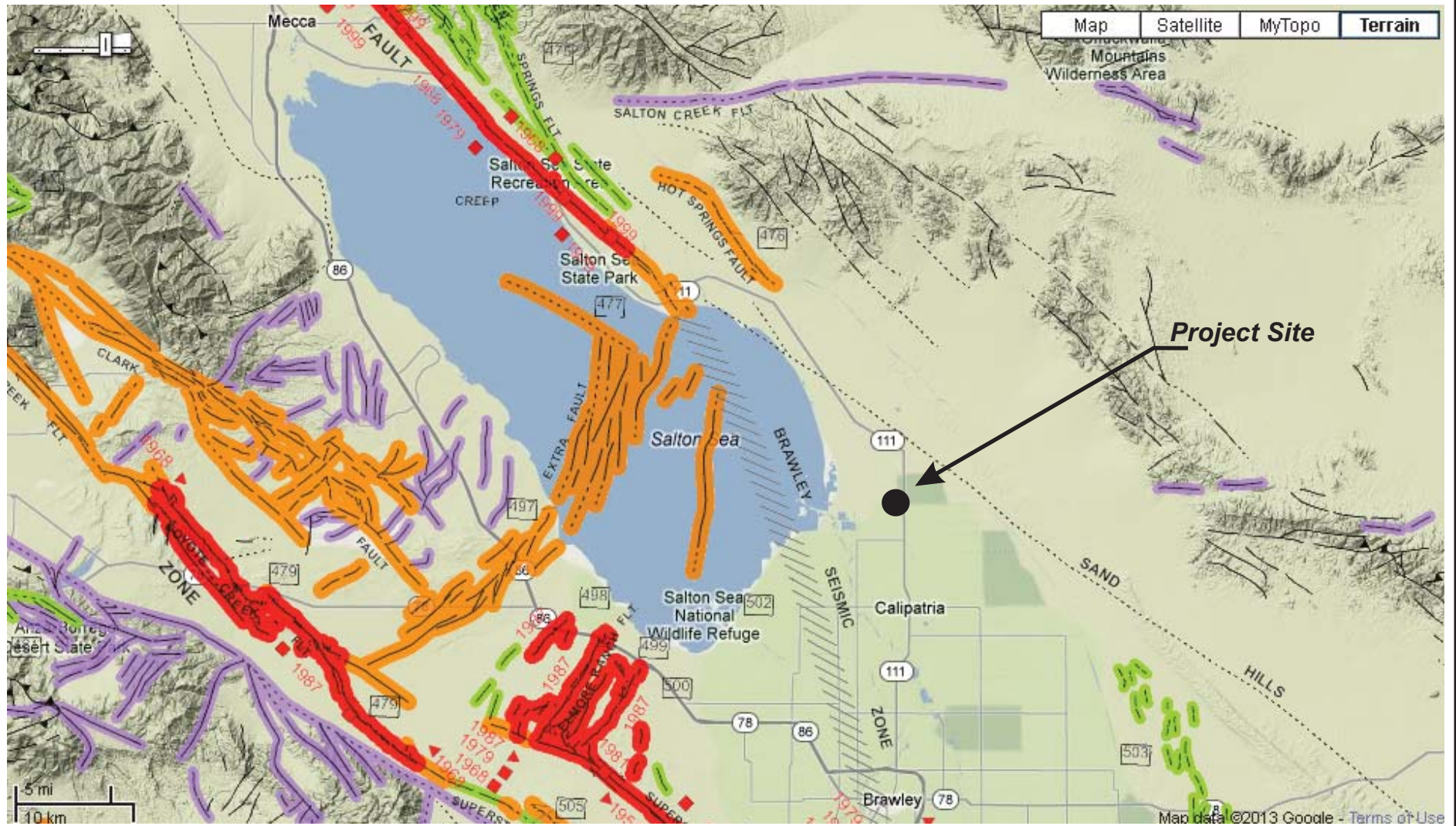
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Regional Fault Map

Figure 1





Source: California Geological Survey 2010 Fault Activity Map of California  
<http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html#>

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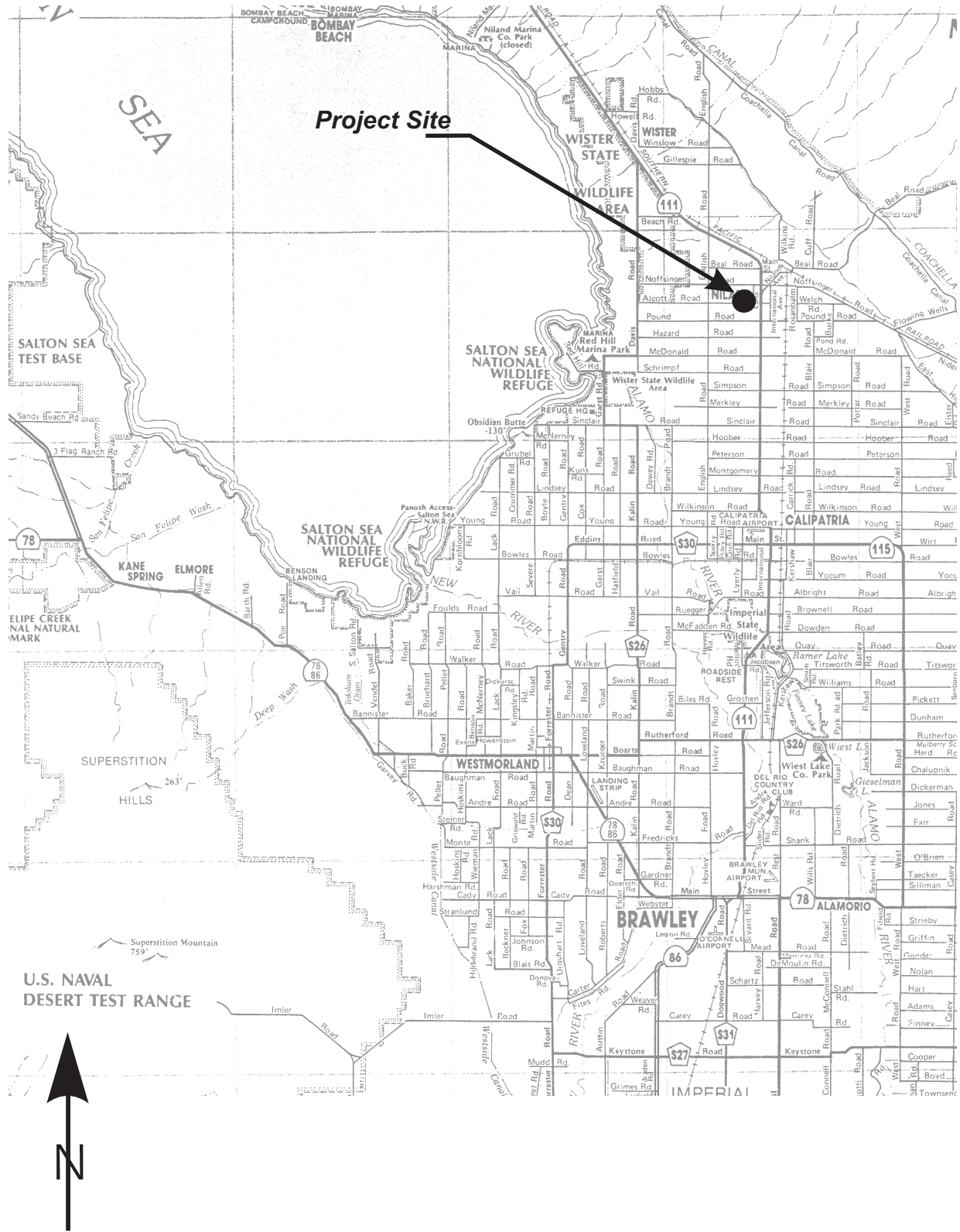
Project No.: LE19176

Map of Local Faults

Figure 2

# APPENDIX A

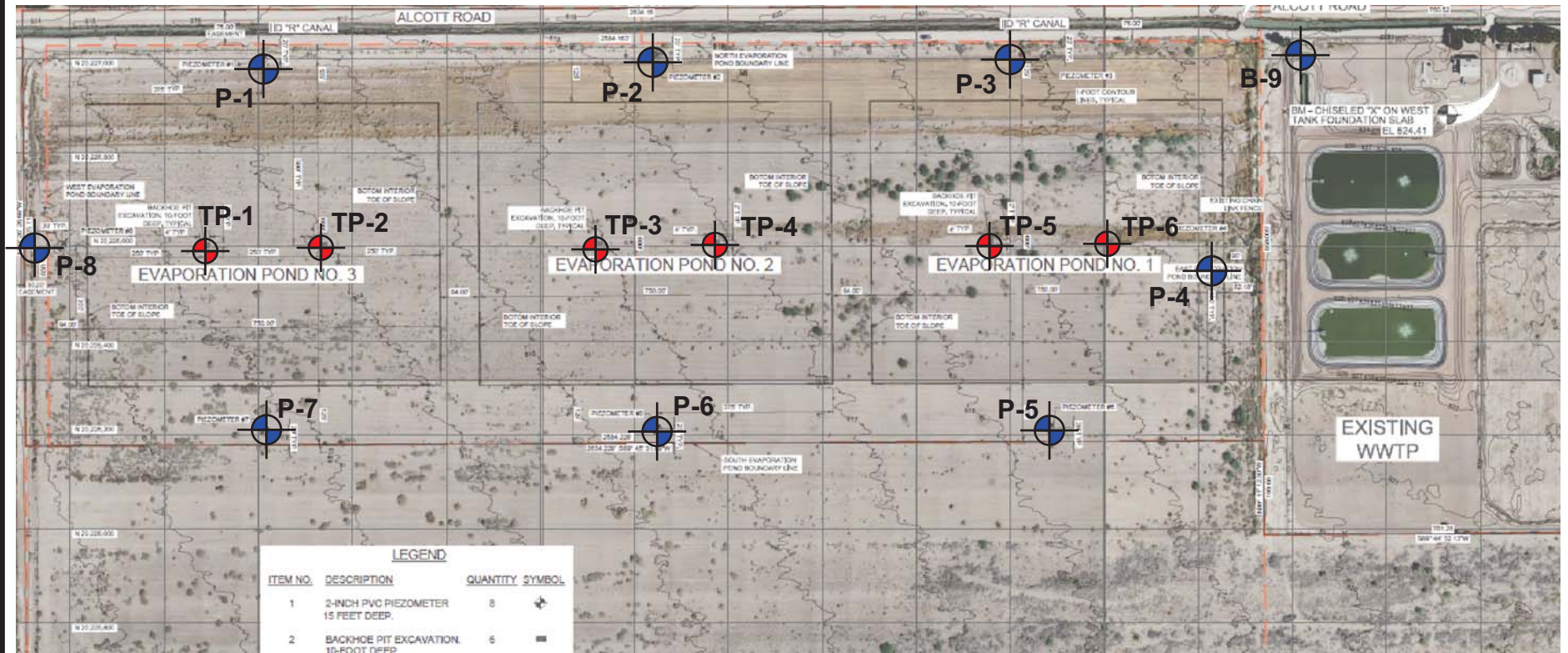




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Vicinity Map

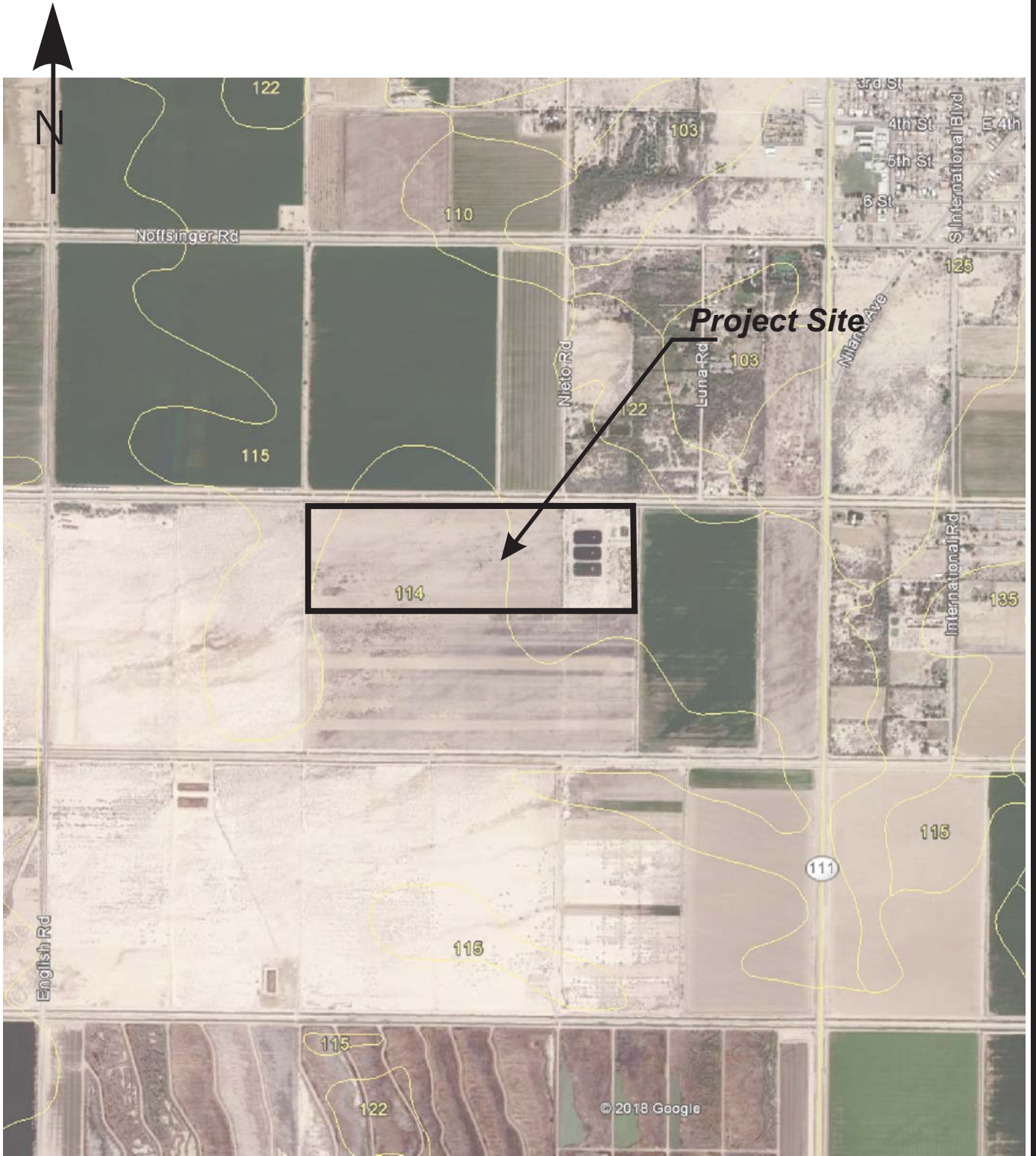
Plate  
 A-1



**Legend**

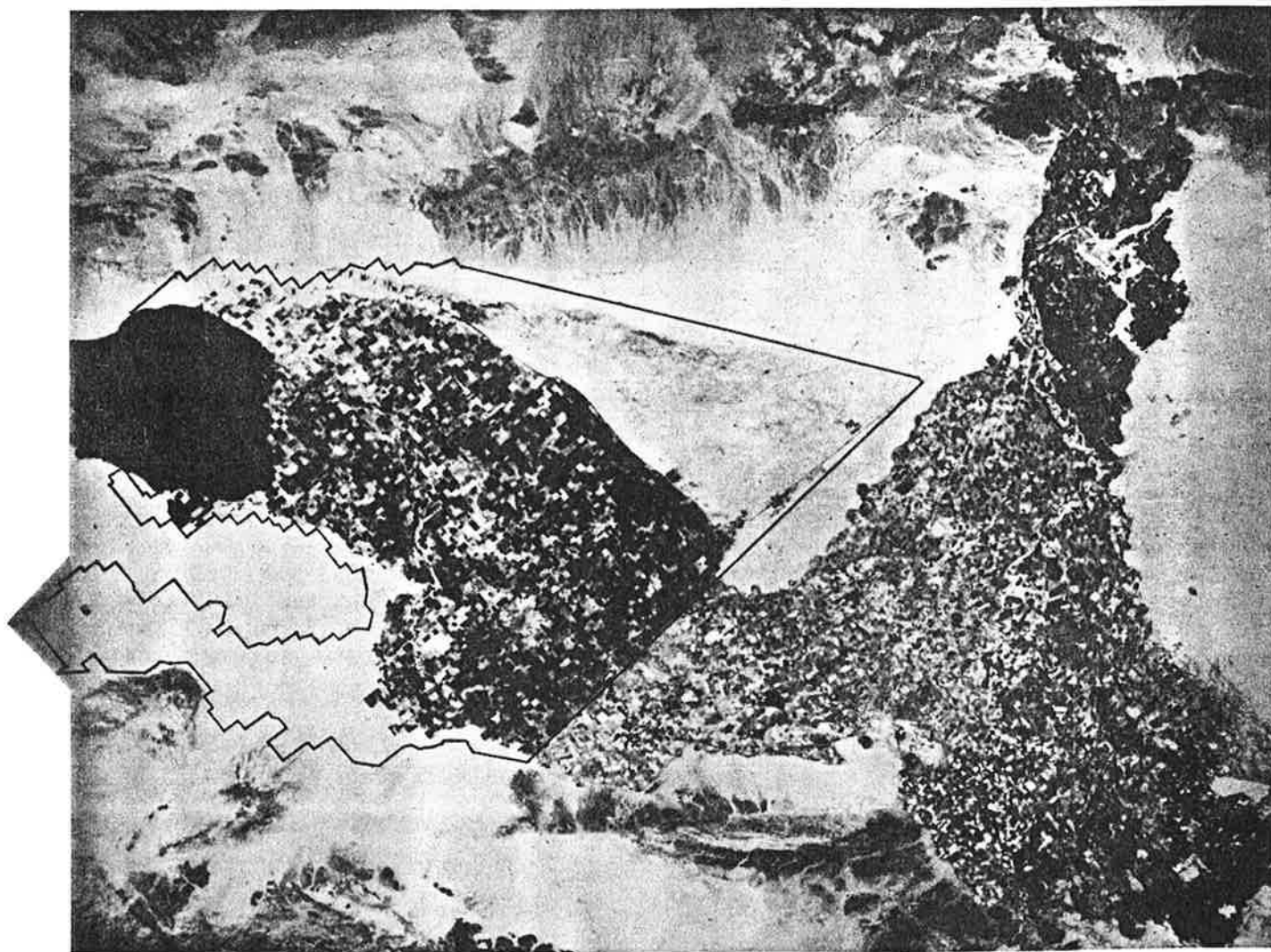
- ⊗ Backhoe Pit Location (approximate)
- ⊕ Piezometer Location (approximate)





Soil Survey of

**IMPERIAL COUNTY  
CALIFORNIA  
IMPERIAL VALLEY AREA**



**United States Department of Agriculture Soil Conservation Service**  
in cooperation with  
**University of California Agricultural Experiment Station**  
and  
**Imperial Irrigation District**

TABLE 11.--ENGINEERING INDEX PROPERTIES

[The symbol > means more than. Absence of an entry indicates that data were not estimated]

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
100----- Antho	0-13 13-60	Loamy fine sand Sandy loam, fine sandy loam.	SM SM	A-2 A-2, A-4	0 0	100 90-100	100 75-95	75-85 50-60	10-30 15-40	--- ---	NP NP
101*: Antho-----	0-8 8-60	Loamy fine sand Sandy loam, fine sandy loam.	SM SM	A-2 A-2, A-4	0 0	100 90-100	100 75-95	75-85 50-60	10-30 15-40	--- ---	NP NP
Superstition-----	0-6 6-60	Fine sand----- Loamy fine sand, fine sand, sand.	SM SM	A-2 A-2	0 0	100 100	95-100 95-100	70-85 70-85	15-25 15-25	--- ---	NP NP
102*. Badland											
103----- Carsitas	0-10 10-60	Gravelly sand--- Gravelly sand, gravelly coarse sand, sand.	SP, SP-SM SP, SP-SM	A-1, A-2 A-1	0-5 0-5	60-90 60-90	50-85 50-85	30-55 25-50	0-10 0-10	--- ---	NP NP
104* Fluvaquents											
105----- Glenbar	0-13 13-60	Clay loam----- Clay loam, silty clay loam.	CL CL	A-6 A-6	0 0	100 100	100 100	90-100 90-100	70-95 70-95	35-45 35-45	15-30 15-30
106----- Glenbar	0-13 13-60	Clay loam----- Clay loam, silty clay loam.	CL CL	A-6, A-7 A-6, A-7	0 0	100 100	100 100	90-100 90-100	70-95 70-95	35-45 35-45	15-25 15-25
107*----- Glenbar	0-13 13-60	Loam----- Clay loam, silty clay loam.	ML, CL-ML, CL	A-4 A-6, A-7	0 0	100 100	100 100	100 95-100	70-80 75-95	20-30 35-45	NP-10 15-30
108----- Holtville	0-14 14-22 22-60	Loam----- Clay, silty clay Silt loam, very fine sandy loam.	ML CL, CH ML	A-4 A-7 A-4	0 0 0	100 100 100	100 100 100	85-100 95-100 95-100	55-95 85-95 65-85	25-35 40-65 25-35	NP-10 20-35 NP-10
109----- Holtville	0-17 17-24 24-35 35-60	Silty clay----- Clay, silty clay Silt loam, very fine sandy loam. Loamy very fine sand, loamy fine sand.	CL, CH CL, CH ML SM, ML	A-7 A-7 A-4 A-2, A-4	0 0 0 0	100 100 100 100	100 100 100 100	95-100 95-100 95-100 75-100	85-95 85-95 65-85 20-55	40-65 40-65 25-35 ---	20-35 20-35 NP-10 NP
110----- Holtville	0-17 17-24 24-35 35-60	Silty clay----- Clay, silty clay Silt loam, very fine sandy loam. Loamy very fine sand, loamy fine sand.	CH, CL CH, CL ML SM, ML	A-7 A-7 A-4 A-2, A-4	0 0 0 0	100 100 100 100	100 100 100 100	95-100 95-100 95-100 75-100	85-95 85-95 55-85 20-55	40-65 40-65 25-35 ---	20-35 20-35 NP-10 NP

See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
111*: Holtville-----	0-10	Silty clay loam	CL, CH	A-7	0	100	100	95-100	85-95	40-65	20-35
	10-22	Clay, silty clay	CL, CH	A-7	0	100	100	95-100	85-95	40-65	20-35
	22-60	Silt loam, very fine sandy loam.	ML	A-4	0	100	100	95-100	65-85	25-35	NP-10
Imperial-----	0-12	Silty clay loam	CL	A-7	0	100	100	100	85-95	40-50	10-20
	12-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
112-----	0-12	Silty clay-----	CH	A-7	0	100	100	100	85-95	50-70	25-45
Imperial	12-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
113-----	0-12	Silty clay-----	CH	A-7	0	100	100	100	85-95	50-70	25-45
Imperial	12-60	Silty clay, clay, silty clay loam.	CH	A-7	0	100	100	100	85-95	50-70	25-45
114-----	0-12	Silty clay-----	CH	A-7	0	100	100	100	85-95	50-70	25-45
Imperial	12-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
115*: Imperial-----	0-12	Silty clay loam	CL	A-7	0	100	100	100	85-95	40-50	10-20
	12-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
Glenbar-----	0-13	Silty clay loam	CL	A-6, A-7	0	100	100	90-100	70-95	35-45	15-25
	13-60	Clay loam, silty clay loam.	CL	A-6, A-7	0	100	100	90-100	70-95	35-45	15-25
116*: Imperial-----	0-13	Silty clay loam	CL	A-7	0	100	100	100	85-95	40-50	10-20
	13-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
Glenbar-----	0-13	Silty clay loam	CL	A-6, A-7	0	100	100	90-100	70-95	35-45	15-25
	13-60	Clay loam, silty clay loam.	CL	A-6	0	100	100	90-100	70-95	35-45	15-30
117, 118-----	0-12	Loam-----	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
Indio	12-72	Stratified loamy very fine sand to silt loam.	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
119*: Indio-----	0-12	Loam-----	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
	12-72	Stratified loamy very fine sand to silt loam.	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
Vint-----	0-10	Loamy fine sand	SM	A-2	0	95-100	95-100	70-80	25-35	---	NP
	10-60	Loamy sand, loamy fine sand.	SM	A-2	0	95-100	95-100	70-80	20-30	---	NP
120*: Laveen-----	0-12	Loam-----	ML, CL-ML	A-4	0	100	95-100	75-85	55-65	20-30	NP-10
	12-60	Loam, very fine sandy loam.	ML, CL-ML	A-4	0	95-100	85-95	70-80	55-65	15-25	NP-10

See footnote at end of table.



TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth In	USDA texture	Classification		Frag- ments > 3 inches Pct	Percentage passing sieve number--				Liquid limit Pet	Plas- ticity index
			Unified	AASHTO		4	10	40	200		
121----- Meloland	0-12	Fine sand-----	SM, SP-SM	A-2, A-3	0	95-100	90-100	75-100	5-30	---	NP
	12-26	Stratified loamy fine sand to silt loam.	ML	A-4	0	100	100	90-100	50-65	25-35	NP-10
	26-71	Clay, silty clay, silty clay loam.	CL, CH	A-7	0	100	100	95-100	85-95	40-65	20-40
122----- Meloland	0-12	Very fine sandy loam.	ML	A-4	0	95-100	95-100	95-100	55-85	25-35	NP-10
	12-26	Stratified loamy fine sand to silt loam.	ML	A-4	0	100	100	90-100	50-70	25-35	NP-10
	26-71	Clay, silty clay, silty clay loam.	CH, CL	A-7	0	100	100	95-100	85-95	40-65	20-40
123*: Meloland	0-12	Loam-----	ML	A-4	0	95-100	95-100	95-100	55-85	25-35	NP-10
	12-26	Stratified loamy fine sand to silt loam.	ML	A-4	0	100	100	90-100	50-70	25-35	NP-10
	26-38	Clay, silty clay, silty clay loam.	CH, CL	A-7	0	100	100	95-100	85-95	40-65	20-40
	38-60	Stratified silt loam to loamy fine sand.	SM, ML	A-4	0	100	100	75-100	35-55	25-35	NP-10
Holtville	0-12	Loam-----	ML	A-4	0	100	100	85-100	55-95	25-35	NP-10
	12-24	Clay, silty clay	CH, CL	A-7	0	100	100	95-100	85-95	40-65	20-35
	24-36	Silt loam, very fine sandy loam.	ML	A-4	0	100	100	95-100	55-85	25-35	NP-10
	36-60	Loamy very fine sand, loamy fine sand.	SM, ML	A-2, A-4	0	100	100	75-100	20-55	---	NP
124, 125----- Niland	0-23	Gravelly sand---	SM, SP-SM	A-2, A-3	0	90-100	70-95	50-65	5-25	---	NP
	23-60	Silty clay, clay, clay loam.	CL, CH	A-7	0	100	100	85-100	80-95	40-65	20-40
126----- Niland	0-23	Fine sand-----	SM, SP-SM	A-2, A-3	0	90-100	90-100	50-65	5-25	---	NP
	23-60	Silty clay-----	CL, CH	A-7	0	100	100	85-100	80-95	40-65	20-40
127----- Niland	0-23	Loamy fine sand	SM	A-2	0	90-100	90-100	50-65	15-30	---	NP
	23-60	Silty clay-----	CL, CH	A-7	0	100	100	85-100	80-95	40-65	20-40
128*: Niland	0-23	Gravelly sand---	SM, SP-SM	A-2, A-3	0	90-100	70-95	50-65	5-25	---	NP
	23-60	Silty clay, clay, clay loam.	CL, CH	A-7	0	100	100	85-100	80-100	40-65	20-40
Imperial	0-12	Silty clay-----	CH	A-7	0	100	100	100	85-95	50-70	25-45
	12-60	Silty clay loam, silty clay, clay.	CH	A-7	0	100	100	100	85-95	50-70	25-45
129*: Pits											
130, 131----- Rositas	0-27	Sand-----	SP-SM	A-3, A-1, A-2	0	100	80-100	40-70	5-15	---	NP
	27-60	Sand, fine sand, loamy sand.	SM, SP-SM	A-3, A-2, A-1	0	100	80-100	40-85	5-30	---	NP

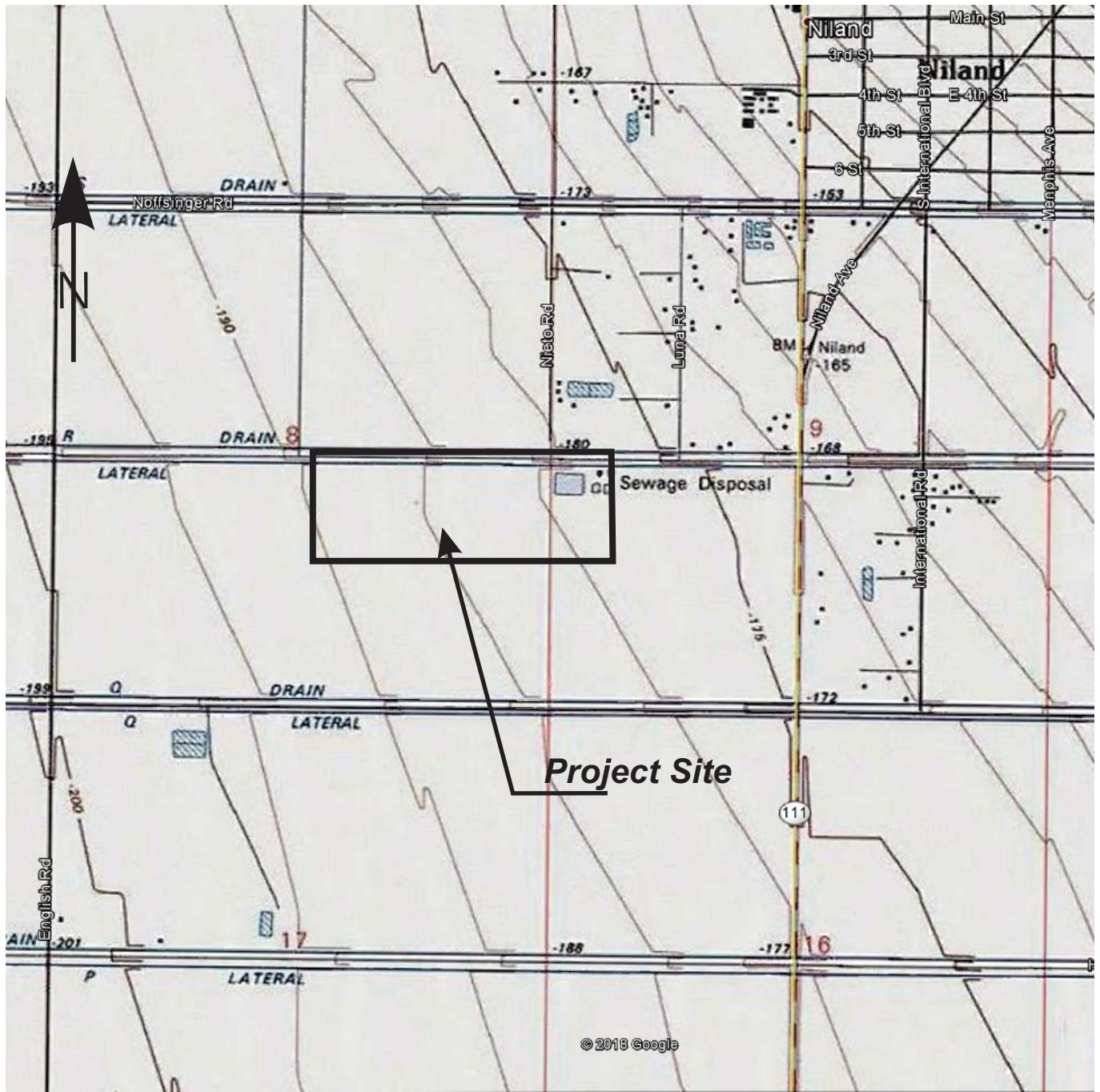
See footnote at end of table.

TABLE 11.--ENGINEERING INDEX PROPERTIES--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
132, 133, 134, 135-Rositas	0-9	Fine sand-----	SM	A-3, A-2	0	100	80-100	50-80	10-25	---	NP
	9-60	Sand, fine sand, loamy sand.	SM, SP-SM	A-3, A-2, A-1	0	100	80-100	40-85	5-30	---	NP
136-----Rositas	0-4	Loamy fine sand	SM	A-1, A-2	0	100	80-100	40-85	10-35	---	NP
	4-60	Sand, fine sand, loamy sand.	SM, SP-SM	A-3, A-2, A-1	0	100	80-100	40-85	5-30	---	NP
137-----Rositas	0-12	Silt loam-----	ML	A-4	0	100	100	90-100	70-90	20-30	NP-5
	12-60	Sand, fine sand, loamy sand.	SM, SP-SM	A-3, A-2, A-1	0	100	80-100	40-85	5-30	---	NP
138*: Rositas-----	0-4	Loamy fine sand	SM	A-1, A-2	0	100	80-100	40-85	10-35	---	NP
	4-60	Sand, fine sand, loamy sand.	SM, SP-SM	A-3, A-2, A-1	0	100	80-100	40-85	5-30	---	NP
Superstition-----	0-6	Loamy fine sand	SM	A-2	0	100	95-100	70-85	15-25	---	NP
	6-60	Loamy fine sand, fine sand, sand.	SM	A-2	0	100	95-100	70-85	15-25	---	NP
139-----Superstition	0-6	Loamy fine sand	SM	A-2	0	100	95-100	70-85	15-25	---	NP
	6-60	Loamy fine sand, fine sand, sand.	SM	A-2	0	100	95-100	70-85	15-25	---	NP
140*: Torriorthents											
Rock outcrop											
141*: Torriorthents											
Orthids											
142-----Vint	0-10	Loamy very fine sand.	SM, ML	A-4	0	100	100	85-95	40-65	15-25	NP-5
	10-60	Loamy fine sand	SM	A-2	0	95-100	95-100	70-80	20-30	---	NP
143-----Vint	0-12	Fine sandy loam	ML, CL-ML, SM, SM-SC	A-4	0	100	100	75-85	45-55	15-25	NP-5
	12-60	Loamy sand, loamy fine sand.	SM	A-2	0	95-100	95-100	70-80	20-30	---	NP
144*: Vint-----	0-10	Very fine sandy loam.	SM, ML	A-4	0	100	100	85-95	40-65	15-25	NP-5
	10-40	Loamy fine sand	SM	A-2	0	95-100	95-100	70-80	20-30	---	NP
	40-60	Silty clay-----	CL, CH	A-7	0	100	100	95-100	85-95	40-65	20-35
Indio-----	0-12	Very fine sandy loam.	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
	12-40	Stratified loamy very fine sand to silt loam.	ML	A-4	0	95-100	95-100	85-100	75-90	20-30	NP-5
	40-72	Silty clay-----	CL, CH	A-7	0	100	100	95-100	85-95	40-65	20-35

\* See description of the map unit for composition and behavior characteristics of the map unit.





**LANDMARK**

Geo-Engineers and Geologists

Project No.: LE19176

Topographic Map

Plate  
A-4

# APPENDIX B








DEPTH	FIELD				LOG OF TEST PIT TP-1 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5					FAT CLAY (CH): Light brown, dry at surface to moist with depth, very stiff, high plasticity.	83.7 96.7 97.5	6.9 10.5 15.0	LL=51, PI=34 Max. 114.5 pcf Opt. MC 15.2%
					SANDY CLAYEY SILT (ML): Brown, damp, med. dense/stiff, med. plasticity.			
10					FAT CLAY (CH): Dark brown, very moist to saturated with depth, very stiff, high plasticity.			
					Groundwater table encountered at 9 ft below surface.			
15								
20								
25								
30								

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: 9 Feet  
 LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
 SURFACE ELEVATION: Approximately -187' HAMMER WT.: NA. DROP: NA.

PROJECT No. LE19176



PLATE B-1

DEPTH	FIELD				LOG OF TEST PIT TP-2 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5					SILTY CLAY/CLAY (CL-CH): Light brown, dry at surface to moist with depth, very stiff, medium to high plasticity.	95.6	5.2	Passing #200 = 18.2%
					SILTY SAND (SM): Light brown, dry, med. dense, very fine grained sand.	92.1	4.3	
					FAT CLAY (CH): Dark brown, very moist to saturated with depth, very stiff, high plasticity.	85.0	3.6	
10								
15					Groundwater table encountered at 9.5 ft below surface.			
20								
25								
30								

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: 9.5 Feet  
LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
SURFACE ELEVATION: Approximately -186' HAMMER WT.: NA. DROP: NA.

**PROJECT No. LE19176**



**PLATE B-2**

DEPTH	FIELD				LOG OF TEST PIT TP-3 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5					FAT CLAY (CH): Light brown, dry, hard, high plasticity.	96.0	6.8	LL=55, PI=36
					Dark brown, very moist, very stiff to hard	96.4	13.8	
						97.7	17.9	
10					Groundwater was not encountered at the time of exploration			
15								
20								
25								
30								

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: NA.  
 LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
 SURFACE ELEVATION: Approximately -184' HAMMER WT.: NA. DROP: NA.

PROJECT No. LE19176



PLATE B-3

DEPTH	FIELD				LOG OF TEST PIT TP-4 SHEET 1 OF 1		LABORATORY			
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)	DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)	OTHER TESTS		
5					SILTY CLAY/CLAY (CL-CH): Light brown, dry at surface to moist with depth, very stiff, medium to high plasticity.	90.9	8.8			
						92.6	14.5			
					SILTY SAND (SM): Light brown, dry, med. dense, very fine grained sand.	95.4	6.7			
10					FAT CLAY (CH): Dark brown, very moist to saturated with depth, very stiff, high plasticity.					
15							Groundwater was not encountered at the time of exploration			
20										
25										
30										

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: 9.5 Feet  
 LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
 SURFACE ELEVATION: Approximately -182' HAMMER WT.: NA. DROP: NA.

**PROJECT No. LE19176**



**PLATE B-4**

DEPTH	FIELD				LOG OF TEST PIT TP-5 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
					SILTY CLAY (CL): Light brown, dry at surface to moist with depth, very stiff, medium plasticity.	93.5	8.4	LL=48, PI=32
					SANDY SILT (ML): Light brown, moist to very moist, medium dense, with very fine grained sand.	96.5	10.8	
5					FAT CLAY (CH): Dark brown, very moist, very stiff, high plasticity.	94.4	18.7	
					SILTY SAND (SM): Brown, saturated, medium dense, fine grained sand.			Passing #200 = 42.3%
10					Groundwater table encountered at 7.5 ft below surface.			
15								
20								
25								
30								

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: 7.5 Feet  
LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
SURFACE ELEVATION: Approximately -180' HAMMER WT.: NA. DROP: NA.

DEPTH	FIELD				LOG OF TEST PIT TP-6 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5	X	Diagonal lines			SILTY CLAY (CL): Light brown, dry at surface to moist with depth, very stiff, medium plasticity.	97.8	10.3	Passing #200 = 18.0%
					FAT CLAY (CH): Dark brown, very moist, very stiff, high plasticity.	98.5	16.8	
						91.3	18.2	
10		Dotted pattern			SILTY SAND (SM): Brown, saturated, medium dense, fine to medium coarse grained sand.			
15					Groundwater table encountered at 7.0 ft below surface.			
20								
25								
30								

DATE EXCAVATED: 11/7/19 TOTAL DEPTH: 10 Feet DEPTH TO WATER: 7.0 Feet  
 LOGGED BY: J. Avalos TYPE OF BIT: NA. DIAMETER: NA.  
 SURFACE ELEVATION: Approximately -180' HAMMER WT.: NA. DROP: NA.

PROJECT No. LE19176



PLATE B-6



DEPTH	FIELD				LOG OF BORING No. B-9 SHEET 1 OF 1	LABORATORY		
	SAMPLE	USCS CLASS.	BLOW COUNT	POCKET PEN. (tsf)		DESCRIPTION OF MATERIAL	DRY DENSITY (pcf)	MOISTURE CONTENT (% dry wt.)
5					SILTY CLAY (CL): Brown, moist, stiff	125.6	5.2	LL=44% PI=30%
			25	2.5	CLAY (CH): Brown, very moist, stiff, with 2" sand layer at tip.			
10			18	1.0	SILTY SAND (SM): Light brown, very wet, medium grain sands			
15			5					
20			23		SANDY SILT (ML-SM): Olive gray with yellows, very wet, with few clays.			
25			14		SANDY CLAYEY SILT (SM-ML): Olive brown, very wet.			
30			8	2.0	SILTY CLAY (CL): Olive brown with grays, sat, with few vfg sands.		21.2	Passing #200 = 18.2%
35								
40								
45								
50								
55								
60					Total Depth = 30.0' 30' Piezometer Installed Backfilled with excavated soil			

DATE DRILLED: 11/8/19      TOTAL DEPTH: 30.0 Feet      DEPTH TO WATER: 11.8 ft.  
 LOGGED BY: P. LaBrucherie      TYPE OF BIT: Hollow Stem Auger      DIAMETER: 8 in.  
 SURFACE ELEVATION: Approximately -176'      HAMMER WT.: 140 lbs.      DROP: 30 in.

# APPENDIX C

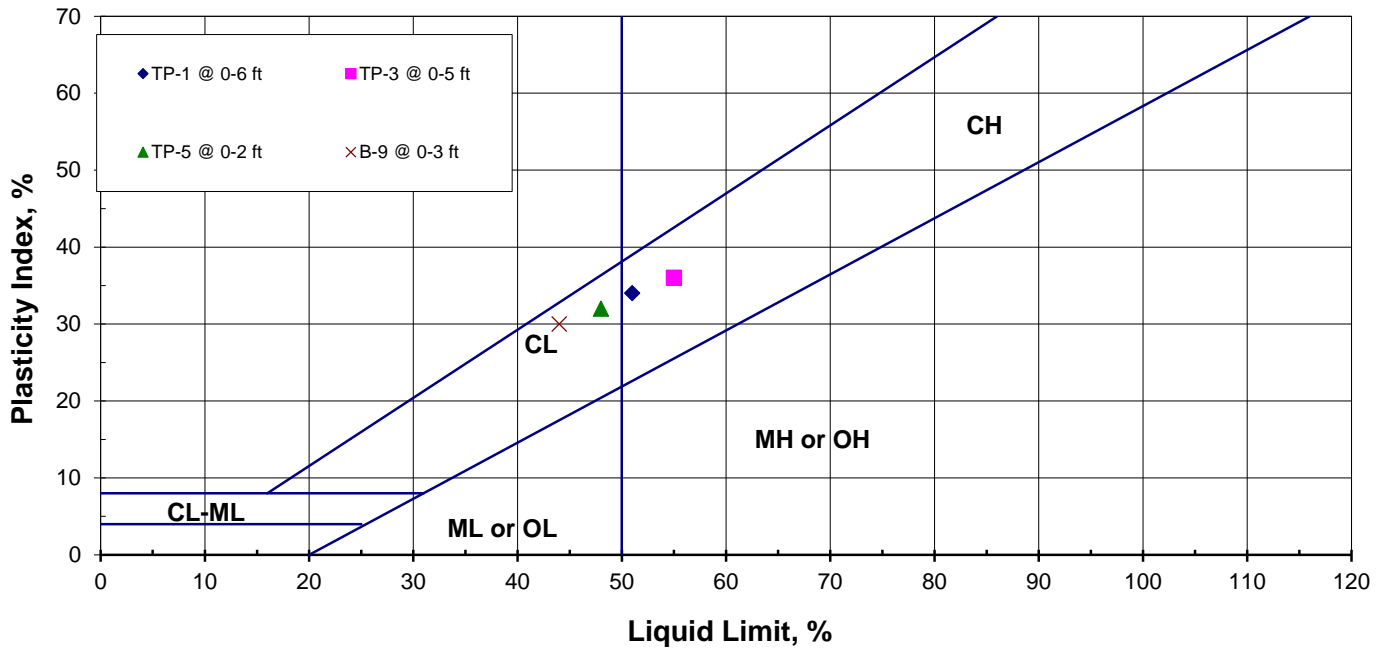
# LANDMARK CONSULTANTS, INC.

**CLIENT:** The Holt Group  
**PROJECT:** Niland WWTP - Niland, CA  
**JOB No.:** LE19176  
**DATE:** 11/14/19

## ATTERBERG LIMITS (ASTM D4318)

Sample Location	Sample Depth (ft)	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)	USCS Classification
TP-1	0-6	51	17	34	CH
TP-3	0-5	55	19	36	CH
TP-5	0-2	48	16	32	CL
B-9	0-3	44	14	30	CL

### PLASTICITY CHART



**Project No.:** LE19176

**Atterberg Limits  
Test Results**

**Plate  
C-1**

# LANDMARK CONSULTANTS, INC.

**CLIENT:** The Holt Group  
**PROJECT:** Niland WWTP  
**JOB No.:** LE19176  
**DATE:** 11/13/19

## CHEMICAL ANALYSIS

<b>Boring:</b>	B-9	<b>Caltrans Method</b>
<b>Sample Depth, ft:</b>	0-3	
<b>pH:</b>	7.5	643
<b>Electrical Conductivity (mmhos):</b>	2.44	424
<b>Resistivity (ohm-cm):</b>	410	643
<b>Chloride (Cl), ppm:</b>	1,360	422
<b>Sulfate (SO<sub>4</sub>), ppm:</b>	2,400	417

### General Guidelines for Soil Corrosivity

Material Affected	Chemical Agent	Range of Values	Degree of Corrosivity
Concrete	Soluble Sulfates (ppm)	0 - 1,000	Low
		1,000 - 2,000	Moderate
		2,000 - 20,000	Severe
		> 20,000	Very Severe
Normal Grade Steel	Soluble Chlorides (ppm)	0 - 200	Low
		200 - 700	Moderate
		700 - 1,500	Severe
		> 1,500	Very Severe
Normal Grade Steel	Resistivity (ohm-cm)	1 - 1,000	Very Severe
		1,000 - 2,000	Severe
		2,000 - 10,000	Moderate
		> 10,000	Low

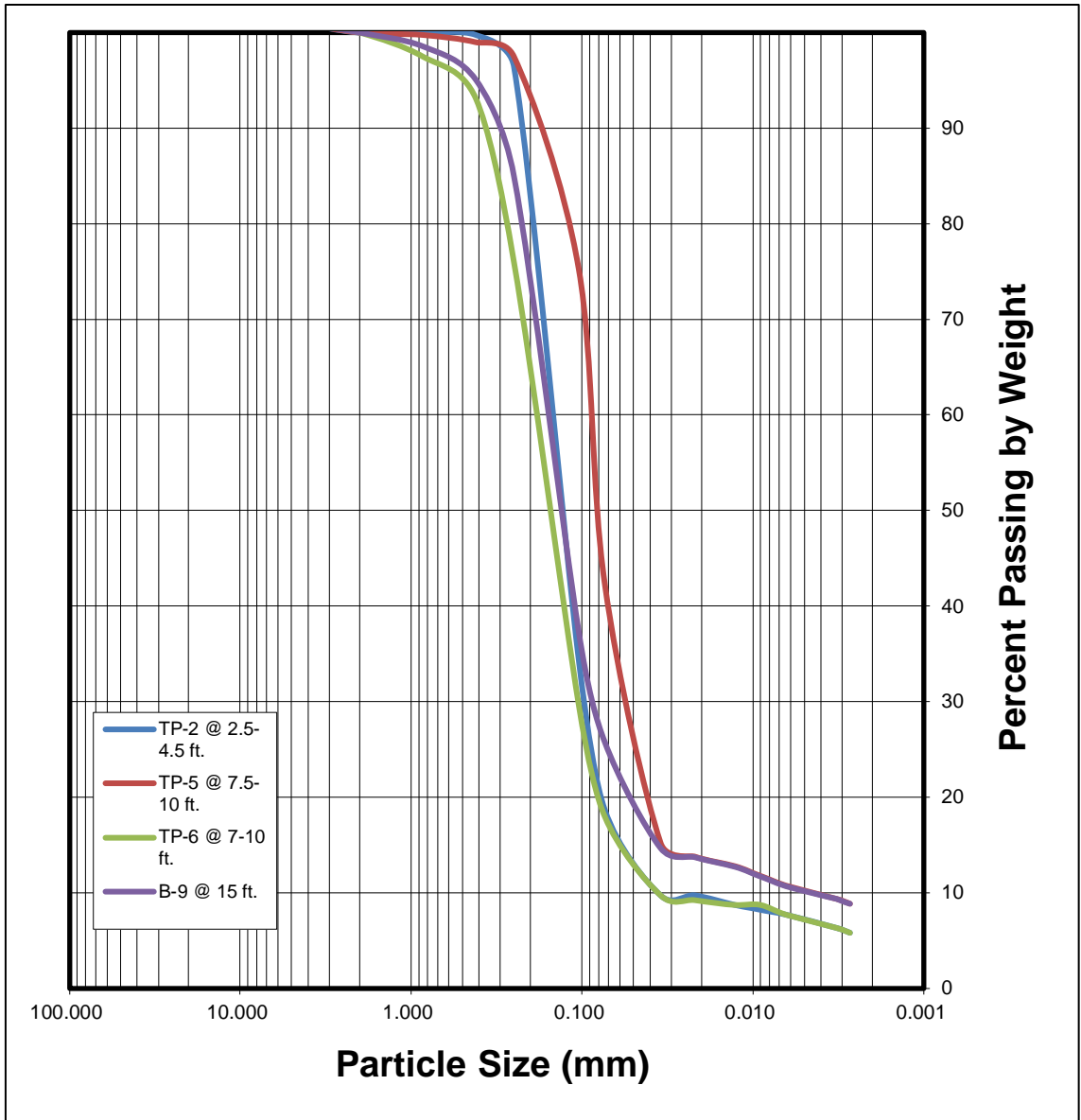
**LANDMARK**  
Geo-Engineers and Geologists

Project No.: LE19176

**Selected Chemical  
Test Results**

**Plate  
C-2**

SIEVE ANALYSIS					HYDROMETER ANALYSIS
Gravel		Sand			Silt and Clay Fraction
Coarse	Fine	Coarse	Medium	Fine	



**LANDMARK**  
Geo-Engineers and Geologists

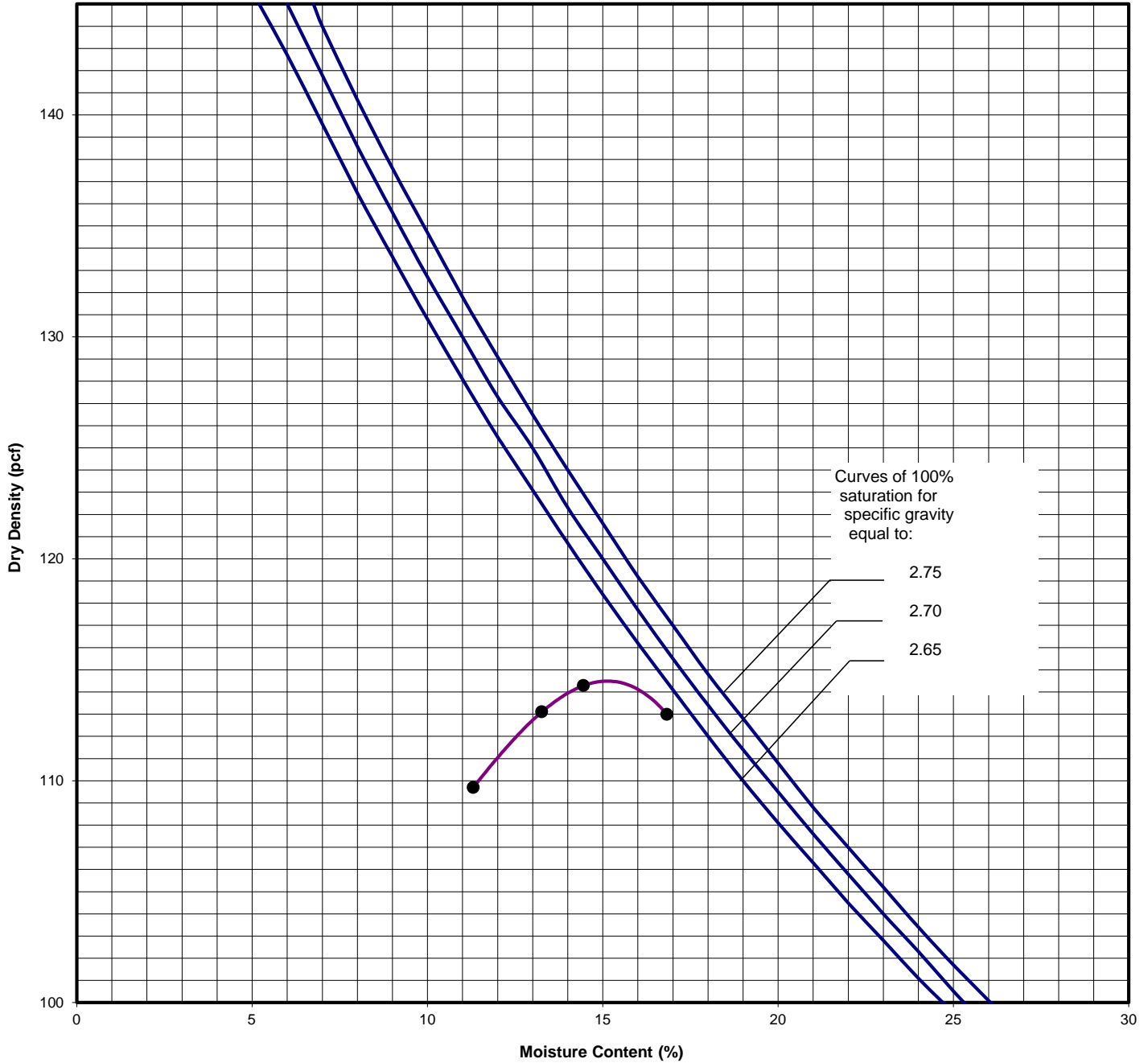
Project No.: LE19176

Grain Size Analysis

Plate  
C-3

Client: The Holt Group  
Project: Niland Wwtp Evaporation Ponds  
Project No.: LE19176  
Date: 11/26/2019  
Lab. No.: EC19-507

Soil Description: Fat Clay (CH)  
Sample Location: Tp-1@0-10'  
Test Method: ASTM D-1557-A  
Maximum Dry Density (pcf): 114.5  
Optimum Moisture Content (%): 15.2



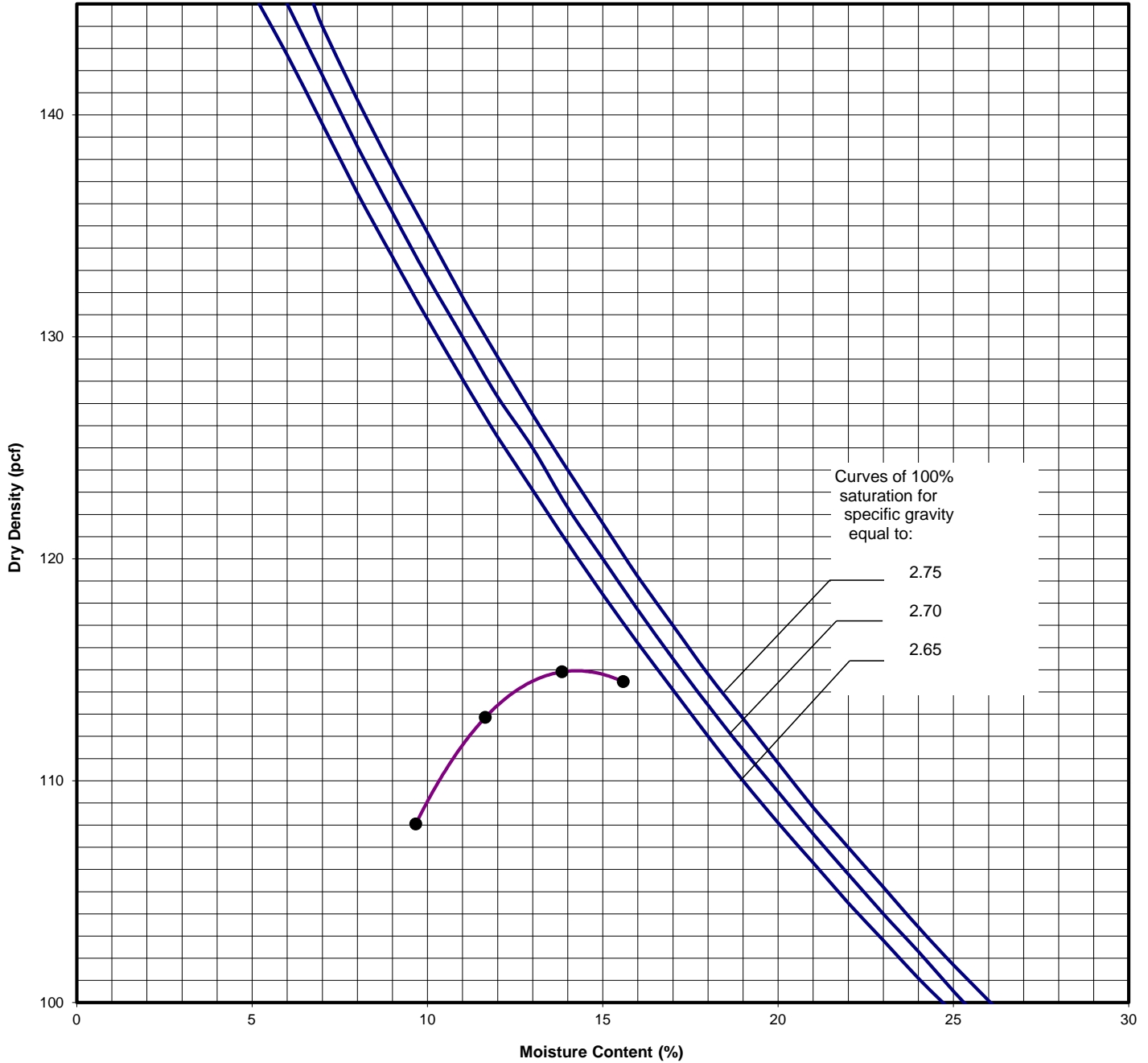
Project No.: LE19176

### Moisture Density Relationship

Plate  
C-4

Client: The Holt Group  
Project: Niland Wwtp Evaporation Ponds  
Project No.: LE19176  
Date: 11/26/2019  
Lab. No.: EC19-511

Soil Description: Fat Clay (CH)  
Sample Location: TP-5@0-2'  
Test Method: ASTM D-1557-A  
Maximum Dry Density (pcf): 115.0  
Optimum Moisture Content (%): 14.3



**Groundwater Monitoring Wells  
Niland WWTP  
Analytical Test Results**

Well Number		P-6	P-7	P-2	P-3
Sample ID		#1	#2	#3	#4
Analyte	Units				
TPH (Gas)	µg/L	nd	nd	nd	nd
TPH (Diesel)	mg/L	nd	nd	nd	nd
Oil & Grease	mg/L	nd	nd	nd	nd
TDS	mg/L	<b>9,320</b>	<b>22,200</b>	<b>6,210</b>	<b>6,510</b>
pH	SU	<b>6.56</b>	<b>6.49</b>	<b>6.76</b>	<b>6.57</b>
Ammonia	mg/L	0.297	0.114	0.207	0.278
Chloride	mg/L	770	7,600	1,020	1,650
Fluoride	mg/L	16.8	27.9	3.2	4.03
Nitrate	mg/L	nd	nd	6.04	nd
Nitrite	mg/L	nd	nd	nd	nd
Sulfate	mg/L	2,880	4,720	2,090	1,800
Calcium	mg/L	448	772	201	468
Sodium	mg/L	2,420	6,020	1,320	1,340
Potassium	mg/L	45	94.5	25.1	33.6
Phosphorous P	mg/L	0.217	1.248	nd	1.768
Phosphorous PO4	mg/L	0.665	3.83	nd	5.42
BOD	mg/L	<b>nd</b>	<b>nd</b>	<b>nd</b>	<b>nd</b>
Fecal Coliform	MPN/100ml	<b>&lt;1.8</b>	<b>&gt;1600</b>	3.7	<1.8



**Appendix C – Conditional Use Permit (CEQA Document)**

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When Recorded Return To:

Imperial County Planning & Dev. Services Depart.  
801 Main Street  
El Centro, California 92243

Recorded in Official Records,  
IMPERIAL COUNTY  
Doc#: 2019015433  
08/19/2019 10:17 AM

**AGREEMENT FOR CONDITIONAL USE PERMIT #19-0006  
EXPANSION/REHABILITATION OF NILAND COUNTY  
SANITATION DISTRICT FACILITY  
(Niland County Sanitation District)  
(Approved at Planning Commission on July 24, 2019)**

This Agreement is made and entered into on this 14<sup>th</sup> day of August, 2019 by and between **Niland County Sanitation District**, hereinafter referred to as Permittee, and the **COUNTY OF IMPERIAL**, a political subdivision of the State of California, (hereinafter referred to as "COUNTY").

**RECITALS**

**WHEREAS**, Permittee is the owner, and/or operator and/or successor-in-interest in certain land in Imperial County known as Assessor's Parcel Number 021-240-001 & 006-000 and 021-200-005-000, approximately 73.36 acres, and;

**WHEREAS**, Permittee has applied to the County for the expansion/rehabilitation of the existing Niland County Sanitation District facility, and;

**WHEREAS**, the County, after a noticed public hearing, agreed to issue Conditional Use Permit #19-0006 to Permittee, and/or his or her successor-in-interest subject to the following conditions:

1 **NOW THEREFORE**, The County issued the CUP (#19-0006) subject to the following  
2 conditions:

3 **GENERAL CONDITIONS:**  
4

5 *The "GENERAL CONDITIONS" are shown by the letter "G". These conditions are conditions that*  
6 *are either routinely and commonly included in all Conditional Use Permits as "standardized"*  
7 *conditions and/or are conditions that the Imperial County Planning Commission has established as*  
8 *a requirement on all CUP's for consistent application and enforcement. The Permittee is advised*  
9 *that the General Conditions are as applicable as the SITE SPECIFIC conditions!*

---

10 **G-1 GENERAL LAWS:**

11 The Permittee shall comply with any and all local, state, and/or federal laws, rules,  
12 regulations, ordinances, and/or standards as they may pertain to this project  
13 whether specified herein or not.

14 **G-2 PERMIT/LICENSE:**

15 Permittee shall obtain any and all permits, licenses, and/or approvals, for the  
16 construction and/or operation of this project. This shall include, but shall not be  
17 limited to, County Division of Environmental Health Services (EHS), Planning &  
18 Development Services Department, Fire/Office of Emergency Services (OES),  
19 RWQCB, and Public Works Department. Permittee shall likewise comply with all  
20 such permit requirements for the life of the project. Additionally, Permittee shall  
21 submit a copy of such additional permit and/or licenses to the Planning &  
22 Development Services Department within 30-days of receipt, including  
23 amendments or alternatives thereto, if requested.

24 **G-3 RECORDATION:**

25 This permit shall not be effective until it is recorded at the Imperial County  
26 Recorders Office, and payment of the recordation fee shall be the responsibility of  
27 the Permittee. If the Permittee fails to pay the recordation fee within six (6) months  
28 from the date of approval, and/or this permit is not recorded within 180 days from  
the date of approval, this permit shall be deemed null and void, without notice  
having to be provided to Permittee. Permittee may request a written extension by  
filing such a request with the Planning Director at least 30 days prior to the original  
180-day expiration. The Director may approve an extension for a period not to  
exceed 180 days. An extension may not be granted if the request for an extension  
is filed after the expiration date.

**G-4 CONDITION PRIORITY:**

This project shall be constructed and operated as described in the Conditional Use  
Permit application, the project description, and as specified in these conditions.

1 Where a conflict occurs, the Conditional Use Permit conditions shall govern and  
2 take precedence.

3 **G-5 INDEMNIFICATION:**

4 As a condition of this Permit, Permittee agrees to defend, indemnify, hold  
5 harmless, and release the County, its agents, officers, attorneys, and employees  
6 from any claim, action, or proceeding brought against any of them, the purpose of  
7 which is to attack, set aside, void, or annul the Permit or adoption of the  
8 environmental document which accompanies it. This indemnification obligation  
9 shall include, but not be limited to, damages, costs, expenses, attorneys fees, or  
expert witness fees that may be asserted by any person or entity, including the  
Permittee, arising out of or in connection with the approval of this Permit, whether  
or not there is concurrent, passive or active negligence on the part of the County,  
its agents, officers, attorneys, or employees.

10 **G-6 RIGHT OF ENTRY:**

11 The County reserves the right to enter the premises at any time, announced or  
12 unannounced, in order to make the appropriate inspection(s) and to determine if  
the condition(s) of this permit are complied with. Access to authorized  
enforcement agency personnel shall not be denied.

13 **G-7 SEVERABILITY:**

14 Should any condition(s) of this permit be determined by a Court or other agency  
15 with proper jurisdiction to be invalid for any reason, such determination shall not  
invalidate the remaining provision(s) of this permit.

16 **G-8 PROVISION TO RUN WITH LAND:**

17 The provisions of this project are to run with the land/project and shall bind the  
18 current and future owner(s) successor(s)-in-interest; assignee(s) and/or  
19 transferee(s) of said project. Permittee shall not without prior notification to the  
20 Planning and Development Services Department assign, sell, or transfer, or grant  
control of project or any right or privilege therein. The Permittee shall provide a  
minimum of 60 days written notice prior to such proposed transfer becoming  
effective. The permitted use identified herein is limited for use upon this parcel  
described herein and may not be transferred to another parcel.

21 **G-9 COMPLIANCE/REVOCACTION:**

22 Upon the determination by the Planning and Development Services Department  
23 that the project is or may not be in full compliance with any one or all of the  
24 conditions of this Conditional Use Permit, or upon the finding that the project is  
25 creating a nuisance as defined by law, the issue shall be brought immediately to  
26 the appropriate enforcement agency or to the Planning Commission for hearing to  
27 consider appropriate response including but not limited to the revocation of the  
28 CUP or to consider possible amendments to the CUP. The hearing shall be held  
upon due notice having been provided to the Permittee and to the public in  
accordance with established ordinance/policy.

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**G-10 TIME LIMIT:**

Unless otherwise specified within the project specific conditions this project shall be limited to a maximum of (3) three years from the recordation date of the CUP. The CUP may be extended for successive three (3) year(s) by the Planning Director upon a finding by the Planning & Development Services Department that the project is in full and complete compliance with all conditions of the CUP and any applicable land use regulation(s) of the County of Imperial. Unless specified otherwise herein no conditional use permit shall be extended for more than four (4) consecutive periods. If an extension is necessary or requested beyond fifteen (15) years, Permittee shall file a written request with the Planning Director for a hearing before the Planning Commission. Such request shall include the appropriate extension fee. An extension shall not be granted if the project is in violation of any one or all of the conditions or if there is a history of non-compliance with the project conditions.

**G-11 COSTS:**

Permittee shall pay any and all amounts determined by the County to defray any and all cost(s) for the review of reports, field investigations, monitoring, and other activities directly related to the enforcement/monitoring for compliance of this Conditional Use Permit, County Ordinance or any other applicable law. Any billing against this project, now or in the future, by the Planning and Development Services Department or any County Department for costs incurred as a result of this Permit, shall be billed through the Planning and Development Services Department.

**G-12 WATER AND SEWER:**

Permittee shall provide water and sewer to Federal, State and County standards. Water and sewer systems shall be approved by the Environmental Health Services and the Planning and Development Services Department.

**G-13 MINOR AMENDMENTS:**

The Planning Director may approve minor modifications to the Permit to accommodate minor changes or modification to the design, construction, and/or operation of the Project provided said changes are necessary for the project to meet other laws, regulations, codes, or conditions of the CUP and provided further, that such changes will not result in any additional environmental impacts.

**G-14 DEFINITIONS:**

In the event of a dispute, the meaning(s) or intent of word(s) phrase(s) and/or conditions or sections herein shall be determined by the Planning Commission of Imperial County. Their determination shall be final unless an appeal is made to the Board of Supervisors 10 days from the date of their decision.

1 **G-15 SPECIFICITY:**

2 The issuance of this permit does not authorize the Permittee to construct or  
3 operate this project in violation of any state, federal, local law nor beyond the  
4 specified boundaries of the project as shown the application/project  
5 description/permit, nor shall this permit allow any accessory or ancillary use not  
6 specified herein. This permit does not provide any prescriptive right or use to the  
7 Permittee for future addition and/or modification to this project.

8 **G-16 HEALTH HAZARD:**

9 If the County Health Officer determines that a significant health hazard exists to  
10 the public, the County Health Officer may require appropriate measures and the  
11 Permittee shall implement such measures to mitigate the health hazard. If the  
12 hazard to the public is determined to be imminent, such measures may be imposed  
13 immediately and may include temporary suspension of the subject operations.  
14 However, within 45 days of any such suspension of operations, the measures  
15 imposed by the County Health Officer must be submitted to the Planning  
16 Commission for review, and nothing shall prohibit Permittee from requesting a  
17 special Commission meeting and Permittee bears all costs.

18 **G-17 CHANGE OF OWNER/OPERATOR:**

19 In the event the ownership of the site or the operation of the site transfers from the  
20 current Permittee to a new successor Permittee, the successor Permittee shall be  
21 bound by all terms and conditions of this Permit as if said successor was the  
22 original Permittee. Current Permittee shall inform the County Planning and  
23 Development Services Department in writing at least 60 days prior to any such  
24 transfer. Failure of a notice of change of ownership or change of operator shall be  
25 grounds for the immediate revocation of the CUP. In the event of a change, the  
26 new Owner/Operator shall file with the Department, via certified mail, a letter  
27 stating that they are fully aware of all conditions and acknowledge that they will  
28 adhere to all.

**G-18 COMMENCEMENT OF WORK:**

No commencement of work until all conditions pursuant to the CUP has been  
satisfied. Evidence that all conditions pursuant to the CUP have been satisfied  
shall be provided to the Planning Director prior to commencement.

**G-19 FIRE PROTECTION:**

Permittee shall provide an adequate fire protection system and accessibility to the  
site in accordance with the National Fire Protection Act (NFPA), Uniform Fire Code  
and County Fire Department standards, as applicable.

**G-20 INSURANCE:**

The Permittee shall take out and maintain Workers Compensation Insurance as  
required by the State of California. The Permittee shall also secure liability  
insurance and such other insurance as required by state and/or federal law. A  
Certificate of Insurance is to be provided to the Planning and Development  
Services Department by the insurance carrier, and said insurance and certificate

1 shall be kept current for the life of the project. Certificates of Insurance shall be  
2 sent directly to the Planning and Development Services Department by the  
3 insurance carrier and shall name the Department as a recipient of both renewal  
4 and cancellation notices.

---

## 5 **SPECIFIC PROJECT CONDITIONS:**

6 The "SPECIFIC CONDITIONS" are shown by the letter "S". These conditions are conditions "site specific"  
7 to this Conditional Use Permit. The Permittee is advised that the Specific Conditions are as applicable as  
8 the other types of conditions within this Conditional Use Permit that are incorporated herein by reference  
9 and whether included hereinafter or not!

---

### 10 **S-1 PROJECT DESCRIPTION:**

11 The permit authorizes the Permittee to expand and rehabilitate its existing  
12 wastewater treatment facility to address exceedances discharge contamination  
13 from E. coli (bacteria), copper and thallium. The rehabilitation consists of  
14 construction of a three evaporation ponds on a parcel of land on the south side  
15 of Alcott Road west of Highway 111 adjacent to the existing wastewater  
16 treatment plant (WWTP). The evaporation ponds would add an additional step  
17 to the treatment process to eliminate wastewater discharge into the natural  
18 environment and eliminate the need for a National Pollutant Discharge  
19 Elimination System (NPDES) Permit. Effluent from the existing WWTP will be  
20 pumped via a new pump station and deposited into the three large open basins  
21 allowing water to evaporate through solar radiation and wind. Each of the three,  
22 10-acre water surface evaporation ponds to accommodate and average annual  
23 flow of 150,000 gallons per day and with a peak monthly flow of 200,000 gallons  
24 per day with sufficient freeboard to store water during the cool wet winter months  
25 for evaporation during the summer. Approximately, 50 mg/L suspended solids  
26 per day will accumulate in the evaporation basins and as water naturally  
27 evaporates the solids will compact as they settle to the bottom of the basin. It  
28 is projected that approximately five inches of solids per year will accumulate  
when the basins are operating at full capacity assuming that the solids will  
compact to a concentration of about 5,000 mg/L. The accumulated solids will  
be cleaned out and disposed at the land fill once every five years.

### 22 **S-2 ACCESS TO SITE:**

23 Access to site shall be as described in the application and/or approved by or  
24 through an encroachment permit.

### 25 **S-3 HOURS OF OPERATION:**

26 Permittee shall be allowed to operate the site, 24 hours per day, seven days a  
27 week.  
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**S-4 PERMITTING:**

Permittee shall obtain all required permits from the Department of Public Works, APCD, Imperial Irrigation District and other applicable federal and state agency(s).

**S-5 ANCILLARY USES & ADDITIONAL LAND USE PERMITS:**

This permit authorizes the Permittee to operate the site as described on the project's application with no additional ancillary facilities or uses. This permit shall be considered the primary permit for this site, and if additional Conditional Use Permit(s) are secured for this site, they shall be subservient to this permit at all times.

**S-6 ENFORCEMENT ACTION:**

County officials responsible for monitoring and/or enforcing the provision of this permit shall issue a notice requiring abatement of a violation of its terms within a reasonable time as set by ordinance or County policy. As an example, responsible County officials may issue a citation and/or cease-and-desist order for repeated violation until such violations are abated. Under specific violations County may order the facility to cease operation until it can or will be operated in full compliance.

**S-7 LIGHT AND GLARE:**

Permittee is allowed to have security as well as operational lighting. Said lighting shall be shielded and direct to on-site areas to minimize off-site interference from unacceptable levels of light and glare.

**S-8 CONFLICTING PERMIT CONDITIONS:**

In the event that there is a conflict between the conditions of this permit and any other permit, the most stringent conditions shall govern.

**S-9 MINOR ADMINISTRATIVE MODIFICATION:**

The Planning Director shall have the authority to make interpretations, issue administrative decision and provide directions that while not modifying the intent of any condition will allow for problem resolution at an administrative level. Both Director and/or Permittee have the right to defer such issues to the Planning Commission. However in no event shall any decision regarding this permit be brought to the Board of Supervisors without first having been brought to the Planning Commission.

**S-10 PUBLIC WORKS: 1**

1. The applicant shall furnish a Drainage and Grading Plan/Study, with associated fees, to provide for property grading and drainage control, which shall also include prevention of sedimentation and damage to off-site properties. The Study/Plan shall be submitted to the Department of Public Works, with associated fees, for review and approval. The applicant shall



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implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) shall be included.

- 3. Prior to the issuance of grading and building permits, contractor shall complete the installation of temporary stabilized construction entrance, if required.
- 4. An encroachment permit shall be secured from the Department of Public Works for any and all new, altered or unauthorized existing driveway(s) to access the properties through surrounding roads.
- 5. All on-site traffic area shall be hard surfaced to provide all weather access for emergency service protection vehicles. The surfacing shall meet the Department of Public Works and Fire/OES Standards as well as those of the Air Pollution Control District and Imperial County Planning & Development Services.
- 6. Corner record is required to be filed with the County Surveyor prior to construction for monuments:  
8771. (b) When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or licensed civil engineer legally authorized to practice land surveying, prior to the time when any streets, highways, other rights-of-way, or easements are improved, constructed, reconstructed, maintained, resurfaced, or relocated and a corner record or record of survey of the references shall be filed with the County Surveyor.
- 7. A second corner record is required to be filed with the County Surveyor for monuments:  
877. (c) A permanent monument shall be reset in the surface of the new construction or a witness monument or monuments set to perpetuate the location if any monument could be destroyed, damaged, covered, disturbed or otherwise obliterated, and a corner record or record of survey shall be filed with the County Surveyor prior to the recording of a certificate of completion for the project. Sufficient controlling monuments shall be retained or replaced in their original positions to enable property, right-of-way and easement lines, property corners, and subdivision and tract boundaries to be reestablished without devious surveys necessarily originating on monument differing from those that currently control the area.

The following items are for informational purposes only. The applicant is responsible to determine if the enclosed items affect the subject project.

- A. All solid and hazardous waste shall be disposed of in an approved solid waste disposal site in accordance with existing County, State and Federal regulations.
- B. At time of development, if required, by section 8762(b) of the Professional Land Surveyors Act, a record of survey shall be filed with the County Recorder of Imperial County.

1 D. The project will require a National Pollutant Discharge Elimination System  
2 (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality  
3 Control Board (RWQCB) prior to County approval of onsite grading plan.

4 **S-11 IMPERIAL IRRIGATION DISTRICT: 2**

5 Please provide documentation from Imperial Irrigation District that you have  
6 complied with their requirements as stated in their comment letter dated  
7 June 24, 2019.

8 **S-12 AIR POLLUTION CONTROL DISTRICT: 3**

9 Permittee shall provide documentation from Air Pollution Control District  
10 that you have complied with their requirements as stated in their comment  
11 letter dated June 26, 2019.

12 **S-13 CA DEPT OF WATER RESOURCES: 4**

13 Permittee shall provide documentation that they are in compliance with the  
14 California Department of Water Resources requirements stated in their  
15 June 29, 2019 letter.

16 **S-14 CALTRANS: 5**

17 Permittee shall provide documentation that they are in compliance with  
18 CALTRANS as requested in their letter dated July 17, 2019

19 **S-15 MITIGATION MEASURES**

20 **Air Quality**

21 **MM AIR 1-1: Fleet Modernization for On-road Haul Trucks:** Trucks hauling  
22 materials such as debris or fill shall sprinkle to mitigate blowing dust prior to  
23 leaving the site. Idling shall be restricted to a maximum of 5 minutes when  
24 not in use. All on-road heavy-duty diesel trucks with a gross vehicle weight  
25 rating of 19,500 pounds or greater used on-site or to transport materials to  
26 and from the site shall comply with CARB 2010 on-road emission standards,  
27 where available.

28 **MM AIR 1-2: Fleet Modernization for Off-road Equipment:** All off-road  
equipment used at the site shall meet current requirements of CARB's OFF-  
ROAD diesel regulations. Idling shall be restricted to a maximum of 5  
minutes when not in use. 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 adjacent paved roads. Movement of  
Bulk Material handling or transfer shall be stabilized prior to handling or at

1 points of transfer with application of sufficient water, chemical stabilizers or  
2 by sheltering or enclosing the operation and transfer line. The construction  
3 of any new unpaved road is prohibited within any area with a population of  
4 500 or more unless the road meets the definition of a Temporary Unpaved  
5 Road. Any temporary unpaved road shall be effectively stabilized and  
6 visible emissions shall be limited to no greater than 20% opacity for dust  
7 emission by paving, chemical stabilizers, dust suppressants and/or  
8 watering.

9 **MM AIR - 1-3:** ICAPCD Measures for Construction Combustion Equipment:  
10 Use of alternative fueled or catalyst equipped diesel construction  
11 equipment, including all off-road and portable diesel powered equipment.  
12 Limit, to the extent feasible, the hours of operation of heavy duty equipment  
13 and/or the amount of equipment in use. Replace fossil fueled equipment  
14 with electrically driven equivalents (provided they are not run via a portable  
15 generator set). Should any transformers/generators be used on-site, an  
16 Authority to Construct/Permit to Operate application shall be submitted to  
17 the APCD. Construction equipment operating on-site should be equipped  
18 with two to four degree engine timing retard or pre-combustion chamber  
19 engines. Construction equipment used for the project should utilize EPA  
20 Tier 2 or better engine technology. Keep vehicles well maintained to prevent  
21 leaks and minimize emissions, and encourage employees to do the same.

## 22 **Biological Resources**

23 **MM BIO 1-1:** Presence/absence surveys per the California Burrowing Owl  
24 Consortium (CBOC) protocol (1993) shall be conducted prior to initiation of  
25 the project to determine the location and abundance of Burrowing Owls  
26 within the project site. The survey protocol requires a focused burrow survey  
27 to identify the potential for the area to support burrowing owls. If the survey  
28 area contains natural or man-made structures that could potentially support  
burrowing owls, or owls are observed during the burrow survey, then three  
subsequent surveys will be required. The CDFW and/or lead agency may  
require mitigation for impacts on Burrowing Owls or their burrows. Impacts  
as defined by the CBOC include the following: Disturbance or harassment  
within 50 meters (approx. 169 ft) of occupied burrows, Destruction of  
burrows and burrow entrances. Burrows include structures such as  
culverts, concrete slabs and debris piles that provide shelter to Borrowing  
Owls, and Degradation of foraging habituated adjacent to occupied  
burrows. Burrowing Owls and their active burrows shall be avoided, if  
possible. Occupied burrows shall not be disturbed during the nesting  
season (February 1 – August 31) unless formally approved by CDFW. If  
impacts on Burrowing Owls are unavoidable, on-site mitigation in the form  
of passive relocation of the Burrowing Owls may be required. Passive  
relocation is deemed as prompting owls to move from occupied burrows  
within the proposed impact area to a natural or artificial burrow at least 50

1 meters from the impact area. This relocation can be accomplished by  
2 installing one-way doors on the burrow entrances and leaving them in place  
3 48 hours to ensure that owls have left the burrow before the burrow is  
4 collapsed. Relocation of Burrowing Owls should only be implemented  
5 during the non-breeding season. Detailed information on passive relocation  
6 and other Burrowing Owl mitigation information can be found in the CBOC  
7 guidelines/ mitigation. With implementation of the aforementioned  
8 mitigation, impacts on Burrowing Owls would be reduced to below a level  
9 of significance.

### 7 **Cultural Resources**

8 **MM CUL 1-1:** In the event archaeological resources potentially eligible for  
9 the MM CUL 1-1: In the event archaeological resources potentially eligible  
10 for the CRHR are encountered, surface disturbing work in the immediate  
11 vicinity of the discovery shall temporarily halt until appropriate treatment of  
12 the resource is determined by a qualified archaeologist in accordance with  
13 the provisions of CEQA Section 15064.5. The archaeological monitor shall  
14 have the authority to re-direct construction equipment in the event  
15 archaeological resources potentially eligible for the CRHR are encountered.

16 **MM CUL 1-2:** In the event that human remains are encountered during  
17 ground-disturbing activities, all ground-disturbing activities in the vicinity of  
18 the find would be stopped. The County Coroner would be notified in  
19 compliance with all relevant federal regulations and as required by CEQA  
20 Guidelines, Section 156064.5(e). All parties involved would ensure that any  
21 such remains are treated in a respectful manner and that all applicable state  
22 and federal laws are followed. If human remains are found to be of Native  
23 American origin, or if associated grave goods or objects of cultural  
24 patrimony are discovered, the provisions of the Native American Graves  
25 Protection and Repatriation Act [NAGPRA] would be followed. The Native  
26 American Heritage Commission shall be asked to determine the  
27 descendants who are to be notified or, if unidentifiable, to establish the  
28 procedures for burial.

### 21 **Hydrology and Water Quality**

22 **MM HM 1-1:** A geotechnical investigation of the project site shall occur prior  
23 to implementation of the project to determine the precise soil and  
24 groundwater conditions. Based on the results of this investigation,  
25 appropriate design and measures shall be incorporated into final  
26 engineering and design of the WWTP improvements.

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## **Geology and Soils**

**MM GS 1-1:** Based on the results of the geotechnical investigation of the project site, appropriate design and measures shall be incorporated into final engineering and design of the WWTP improvements.

1. *Public Works Letter, dated May 28, 2019*
2. *Imperial Irrigation District, dated June 24, 2019*
3. *APCD Letter, dated April 26, 2019*
4. *California Department of Water Resources*
5. **CALTRANS**



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**PERMITTEE NOTARIZATION**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA  
COUNTY OF IMPERIAL } S.S.

On WED. AUG. 14, 2019 before me, CARLOS A. YEE,  
a Notary Public in and for said County and State, personally appeared  
JOHN A. GAY, who proved to me on the  
basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the  
within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the  
instrument the person(s), or the entity upon behalf of which the person(s) acted, executed  
the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the  
foregoing is true and correct.

WITNESS my hand and official seal





Signature \_\_\_\_\_

ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of this certificate to unauthorized document.

Title or Type of Document CONDITIONAL USE PERMIT  
Number of Pages 15 Date of Document 07/24/19 - PLANNING COMMISSION  
Signer(s) Other Than Named Above JAMES MINNICK

1 **FOR COUNTY NOTARIZATION**

2  
3 A notary public or other officer completing this certificate verifies only the identity of the individual who  
4 signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity  
5 of that document.

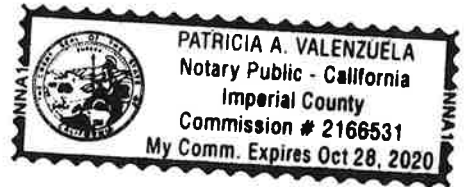
6 STATE OF CALIFORNIA  
7 COUNTY OF IMPERIAL } S.S.

8 On August 15, 2019 before me, PATRICIA A. VALENZUELA  
9 a Notary Public in and for said County and State, personally appeared  
10 JAMES MINNICK, who proved to me on the  
11 basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the  
12 within instrument and acknowledged to me that he/she/they executed the same in  
13 his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the  
14 instrument the person(s), or the entity upon behalf of which the person(s) acted, executed  
15 the instrument.

16 I certify under PENALTY OF PERJURY under the laws of the State of California that the  
17 foregoing paragraph is true and correct.

18 WITNESS my hand and official seal

19 Signature Patricia A. Valenzuela



20  
21 ATTENTION NOTARY: Although the information requested below is OPTIONAL, it could prevent fraudulent attachment of  
22 this certificate to unauthorized document.

23 Title or Type of Document CUP 19-0006  
24 Number of Pages 15 Date of Document August 14th, 2019  
25 Signer(s) Other Than Named Above \_\_\_\_\_

26 S:\APN\021\240\001\CUP19-0006\PC\CUP19-0006 Niland Wastewater.docx





**IMPERIAL COUNTY  
PLANNING & DEVELOPMENT SERVICES**

801 Main Street, El Centro, CA 92243  
Phone: (442) 2652-1736 Fax: (442) 265-1760

## Memorandum

To: Clerk- Recorder

From: Gloria M. Flores 

Date: 08/19/2019

Re: Transfer Funds for Recording Fees for CUP19-0006 Niland County Sanitation

---

Please make the following journal entry:

Account	Description	Debit	Credit
7004000-301000	CUP19-0006 Niland County Sanitation	132.00	
1380001-473000	Recording Fees		132.00

Transfer is to pay for Recording Fees

**CUP19-0006 Niland County Sanitation**

If you have any questions, please do not hesitate to give me a call at (442) 265-1755

Thank you,

Gloria M. Flores

Planning & Development Services



CHUCK STOREY  
COUNTY CLERK/RECORDER  
940 MAIN STREET, SUITE 202  
EL CENTRO, CA, 92243  
(442) 265-1075

Cashier AlexisLeimgruber  
Register CC1-REC-WKS016

IMPERIAL COUNTY - PLANNING & DEVELOPMENT

Receipt # F2019016289

Date / Time 8/19/19 10:17 am

Description	Fee
PERMIT	
Document 2019015433	\$132.00
Time Recorded: 10:17 am	
Recording Fee:	\$132.00
Total Amount Due	\$132.00
Total Paid	
Transfer tendered	\$132.00
# 130001-473000	
Amount Due	0.00

Thank You  
PLEASE KEEP FOR REFERENCE



MITIGATION MONITORING AND REPORTING PROGRAM  
NILAND SANITATION DISTRICT WASTEWATER TREATMENT PLANT IMPROVEMENTS

Impact	Mitigation	Timeframe for Implementation	Responsibility for Implementation	Oversight of Implementation
<p><b>AIR QUALITY</b></p> <p>Implementation of the proposed project may result in short-term emissions conflicting with air quality plan.</p>	<p><b>MM AIR 1-1: Fleet Modernization for On-road Haul Trucks:</b> Trucks hauling materials such as debris or fill shall sprinkle to mitigate blowing dust prior to leaving the site. Idling shall be restricted to a maximum of 5 minutes when not in use. All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used on-site or to transport materials to and from the site shall comply with CARB 2010 on-road emission standards, where available.</p> <p><b>MM AIR 1-2: Fleet Modernization for Off-road Equipment:</b> All off-road equipment used at the site shall meet current requirements or CAHRS OFF-ROAD diesel regulations. Idling shall be restricted to a maximum of 5 minutes when not in use. 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 adjacent paved roads. 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% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.</p> <p><b>MM AIR - 1-3: ICAPCD Measures for Construction Combustion Equipment:</b> Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment. 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). Should any transformers/generators be used on-site, an Authority to Construct/Permit to Operate application shall be submitted to the APCD. Construction equipment operating on-site should be equipped with two to four degree engine timing retard or pre-combustion chamber engines. Construction equipment used for the project should utilize EPA Tier 2 or better engine technology. Keep vehicles well maintained to prevent leaks and minimize emissions, and encourage employees to do the same.</p>	<p>Prior to issuance of building permits</p>	<p>Project Applicant</p>	<p>Imperial County Public Works &amp; Planning and Development Department</p>
<p><b>BIOLOGICAL RESOURCES</b></p>				
<p>Construction activities of the proposed project could result in indirect noise and dust and disturbance of the burrowing owl habitats</p>	<p><b>MM AIR 1-1: Presence/absence surveys per the California Burrowing Owl Consortium (CBOW) protocol (2003) shall be conducted prior to</b> initiation of the project to determine the location and abundance of Burrowing Owls within the project site. The survey protocol requires a focused burrow survey to identify the potential for the area to support burrowing owls. If the survey area contains natural or man-made structures that could potentially support burrowing owls, or owls are observed during the burrow survey, then three subsequent surveys will be required. The CDFW and/or lead agency may require mitigation for impacts on Burrowing Owls or their burrows. Impacts as defined by the CBOW include the following: Disturbance or harassment within 50 meters (approx. 169 ft) of occupied burrows, Destruction of burrows and burrow entrances. Burrows include structures such as culverts, concrete slabs and debris piles that provide shelter to Burrowing Owls, and Degradation of foraging habituated adjacent to occupied burrows. Burrowing Owls and their active burrows shall be avoided, if possible. Occupied burrows shall not be disturbed during the nesting season (February 1 – August 31) unless formally approved by CDFW. If impacts on Burrowing Owls are unavoidable, on-site mitigation in the form of passive relocation of the Burrowing Owls may be required. Passive relocation is deemed as prompting owls to move from occupied burrows within the proposed impact area to a natural or artificial burrow at least 50 meters from the impact area. This relocation can be accomplished by installing one-way doors on the burrow entrances and leaving them in place 48 hours to ensure that owls have left the burrow before the burrow is collapsed. Relocation of Burrowing Owls should only be implemented during the non-breeding season. Detailed information on passive relocation and other Burrowing Owl mitigation information can be found in the CBOW guidelines/mitigation. With implementation of the aforementioned mitigation, impacts on Burrowing Owls would be reduced to below a level of significance.</p>	<p>Prior to the initiation of the project to determine the location and abundance</p>	<p>Project Applicant</p>	<p>Imperial County Public Works &amp; Planning and Development Department</p>

<b>CULTURAL RESOURCES</b>				
<p>Construction activities of the proposed project could cause substantial adverse change in the significance of an archaeological resources</p>	<p><b>MM CUL 1-1:</b> In the event archaeological resources potentially eligible for the CRHR are encountered, surface disturbing work in the immediate vicinity of the discovery shall temporarily halt until appropriate treatment of the resource is determined by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeological monitor shall have the authority to re-direct construction equipment in the event archaeological resources potentially eligible for the CRHR are encountered.</p> <p><b>MM CUL 1-2:</b> In the event that human remains are encountered during ground-disturbing activities, all ground-disturbing activities in the vicinity of the find would be stopped. The County/Coroner would be notified in compliance with all relevant federal regulations and as required by CEQA Guidelines, section 15064.5(e). All parties involved would ensure that any such remains are treated in a respectful manner and that all applicable state and federal laws are followed. If human remains are found to be of Native American origin, or if associated grave goods or objects of cultural patrimony are discovered, the provisions of the Native American Graves Protection and Repatriation Act [NAGPRA] would be followed. The Native American Heritage Commission shall be asked to determine the descendants who are to be notified or, if unidentifiable, to establish the procedures for burial.</p>	<p>Prior to the issuance of building permit and during construction</p>	<p>Project Applicant</p>	<p>Imperial County Public Works &amp; Planning and Development Department</p>
<b>HYDROLOGY AND WATER QUALITY</b>				
<p>Construction of the proposed project would likely interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.</p>	<p><b>MM HM 1-1:</b> A geotechnical investigation of the project site shall occur prior to implementation of the project to determine the precise soil and groundwater conditions. Based on the results of this investigation, appropriate design and measures shall be incorporated into final engineering and design of the WWTP improvements.</p>	<p>During plan approval and during construction</p>	<p>Project Applicant</p>	<p>Imperial County and Contractor Monitoring</p>
<b>GEOLOGY AND SOILS</b>				
<p>Implementation of the proposed project can potentially result in on or off-site landslides, lateral spreading, subsidence, liquefaction or collapse; and risk to life or property.</p>	<p><b>MM GS 1-1:</b> Based on the results of the geotechnical investigation of the project site, appropriate design and measures shall be incorporated into final engineering and design of the WWTP improvements.</p>	<p>During plan approval and during construction</p>	<p>Project Applicant</p>	<p>Imperial County and Contractor Monitoring</p>

# PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE  
FROM: PLANNING & DEVELOPMENT SERVICES

AGENDA DATE: June 13, 2019

AGENDA TIME 1:30 PM / No. 2

PROJECT TYPE: Niland Wastewater Treatment Facility CUP19-0006 SUPERVISOR DIST # 4

LOCATION: 125 Alcott Road APN: 021-240-001/006 & 021-200-005-000

Niland, CA PARCEL SIZE: approx. 73.36 AC

GENERAL PLAN (existing) Agriculture GENERAL PLAN (proposed) N/A

ZONE (existing) A-1 ZONE (proposed) \_\_

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: 06/13/2019

INITIAL STUDY: #19-0008

NEGATIVE DECLARATION  MITIGATED NEG. DECLARATION  EIR

## DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	<input type="checkbox"/>	NONE	<input checked="" type="checkbox"/>	ATTACHED
AG	<input checked="" type="checkbox"/>	NONE	<input type="checkbox"/>	ATTACHED
APCD	<input type="checkbox"/>	NONE	<input checked="" type="checkbox"/>	ATTACHED
E.H.S.	<input checked="" type="checkbox"/>	NONE	<input type="checkbox"/>	ATTACHED
FIRE / OES	<input checked="" type="checkbox"/>	NONE	<input type="checkbox"/>	ATTACHED
SHERIFF	<input checked="" type="checkbox"/>	NONE	<input type="checkbox"/>	ATTACHED
OTHER	<u>IID</u>			

## REQUESTED ACTION:

(See Attached)


- NEGATIVE DECLARATION**  
 **MITIGATED NEGATIVE DECLARATION**

*Initial Study & Environmental Analysis*  
*For:*

**CONDITIONAL USE PERMIT #19-0006**  
**NILAND COUNTY SANITATION DISTRICT**  
**WASTEWATER TREATMENT PLANT IMPROVEMENT PROJECT**



*Prepared By:*

 The Holt Group, Inc.  
1601 North Imperial Avenue  
El Centro, CA 92243

**FOR THE**  
**COUNTY OF IMPERIAL**  
**Planning & Development Services Department**  
801 Main Street  
El Centro, CA 92243  
(442) 265-1736  
[www.icpds.com](http://www.icpds.com)

**June 2019**

**EEC ORIGINAL PKG**

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## SECTION 1 INTRODUCTION

### A. PURPOSE

This document is a  policy-level,  project level Initial Study for evaluation of potential environmental impacts resulting with the proposed Conditional Use Permit for proposed improvements to the Niland County Sanitation District (NCSD) Wastewater Treatment Plant. Proposed improvements include the construction of three evaporation ponds and appurtenant structures on a 56-acre site to be acquired from the adjacent parcel. (Refer to Exhibit "A" & "B").

### 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 has determined that the proposed applications will not result in any potentially significant environmental impacts and therefore, a Negative Declaration is deemed as the appropriate document to provide necessary environmental evaluations and clearance as identified hereinafter.

This Initial Study and Negative Declaration are 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.



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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**

This Initial Study and Negative Declaration 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 Initial Study and Negative Declaration, prepared for the project will be circulated for a period of 20 days (*30-days if submitted to the State Clearinghouse for a project of area-wide significance*) for public and agency review and comments. At the conclusion, if comments are received, the County Planning & Development Services Department will prepare a document entitled "Responses to Comments" which will be forwarded to any commenting entity and be made part of the record within 10-days of any project consideration.

### **D. CONTENTS OF INITIAL STUDY & NEGATIVE DECLARATION**

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, potentially significant impact, or no impact.

**PROJECT SUMMARY, LOCATION AND ENVIRONMENTAL 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.

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

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

VI. **NEGATIVE DECLARATION – COUNTY OF IMPERIAL**

VII. **FINDINGS**

**SECTION 4**

VIII. **RESPONSE TO COMMENTS (IF ANY)**

IX. **MITIGATION MONITORING & REPORTING PROGRAM (MMRP) (IF ANY)**

**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 and Negative Declaration 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 are 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:

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"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.

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- 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.

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## II. *Environmental Checklist*

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1. **Project Title:** Niland County Sanitation District Wastewater Treatment Plan Improvement Project
2. **Lead Agency:** Imperial County Planning & Development Services Department
3. **Contact person and phone number:** Patricia Valenzuela, Planner IV, (442)265-1736, ext. 1749
4. **Address:** 801 Main Street, El Centro CA, 92243
5. **E-mail:** patriciavalenzuela@co.imperial.ca.us
6. **Project location:** The project site is on the south side of Alcott Road approximately 0.37 mile west of Highway 111 south of the unincorporated community of Niland. The site is further identified as Assessor's Parcel Numbers 021-240-001, 021-240-006, and 021-200-005 for a total project are of 73.36 acres.
7. **Project sponsor's name and address:**
8. **General Plan designation:**
9. **Zoning:** A-1 (Limited Agriculture) and A-2-G (General Agriculture)
10. **Description of project:** Improvements to the Niland County Sanitation District's (NCSD) wastewater treatment system are being proposed to address exceedances discharge contamination from E. coli (bacteria), copper, and thallium. Planned improvements include the rehabilitation of sections of the existing sanitary sewer collection system, critical components of the wastewater treatment plant, and the construction of three evaporation ponds on an approximate 56-acre parcel of land adjacent to the existing wastewater treatment plant (WWTP). Land will be acquired from the Imperial Irrigation District through a land swap agreement. The evaporation ponds would add an additional step to the treatment process to eliminate wastewater discharge into the natural environment and eliminate the need for a National Pollutant Discharge Elimination System (NPDES) Permit. Effluent from the existing WWTP will be pumped via a new pump station and deposited into the three large open basins allowing water to evaporate through solar radiation and wind. Each of the three, 10-acre water surface evaporation ponds to accommodate an average annual flow of 150,000 gallons per day with a peak monthly flow of 200,000 gallons per day with sufficient freeboard to store water during the cool wet winter months for evaporation during the summer. Approximately 50 mg/L suspended solids per day will accumulate in the evaporation basins and as water naturally evaporates the solids will compact as they settle to the bottom of the basin. It is projected that approximately five inches of solids per year will accumulate when the basins are operating at full capacity assuming that the solids will compact to a concentration of about 5,000 mg/L. The accumulated solids will be cleaned out and disposed at the land fill once every five years.

A Conditional Use Permit (CUP) is required for the project as it is located within A-1 (Limited Agriculture) and A-2-G (General Agriculture) zones. The existing wastewater treatment plant is situated within three separate but contiguous parcels.

11. **Surrounding land uses and setting:** The project site is primarily surrounded by agricultural land. The area directly to the northwest and west of the project site is zoned A-2-G (General Agriculture with Government Overlay) and the area to the east is zoned A-1 (Limited Agriculture). One parcel to the north of the project site across the street on Alcott Road is zoned C-2-G (Medium Commercial with Government Overlay). The remaining parcels about the project site to the north and northeast are zoned R-1-U (Low Density Residential with Urban Overlay). These residential parcels are at least one acre in size and the nearest existing residence is approximately 725' away from the project site.
12. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**



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- A. Imperial County Planning Commission (Conditional Use Permit)
  - B. California Water Resources Control Board (Financing and Waste Discharge Requirements)
  - C. Caltrans (Encroachment Permit)
  - D. Imperial Irrigation District (Encroachment Permit)
  - E. Imperial County Department of Public Works (Encroachment Permit)
  - F. Imperial County Planning and Development Services (Grading Permit)
  - G. Imperial County Air Pollution Control District (Construction Permit)

**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, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? No have not received any request for 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 21080.3.2). 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.**

No requests for consultation have been received from tribal agencies.

**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.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources      | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Geology /Soils            | <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards & Hazardous Materials      |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning                | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Noise                     | <input type="checkbox"/> Population / Housing               | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Recreation                | <input type="checkbox"/> Transportation                     | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire                           | <input type="checkbox"/> 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**

- PUBLIC WORKS
- ENVIRONMENTAL HEALTH SVCS
- OFFICE EMERGENCY SERVICES
- APCD
- AG
- SHERIFF DEPARTMENT
- ICPDS

**YES**

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**NO**

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**ABSENT**

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*San Michel*  
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 Jim Minnick, Director of Planning/EEC Chairman

*6-13-19*  
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 Date:

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## **PROJECT SUMMARY**

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### **A. Project Location:**

The project site is on the south side of Alcott Road approximately 0.37 mile west of Highway 111 south of the unincorporated community of Niland. The site address is 125 Alcott Road and is further identified as Assessor's Parcel Numbers 021-240-001, 021-240-006, and 021-200-005 for a total project area of 73.36 acres. Exhibit A on page 15 shows a Vicinity Map which illustrates the location of the proposed project.

### **B. Project Summary:**

The County of Imperial recently took over the ownership and operational responsibilities of the Niland Sanitary District. The system consists of a network of sewer collection infrastructure connected to an aeration pond wastewater treatment plant (WWTP). The treatment plant is located within a 17-acre site at 125 Alcott Road in the unincorporated community of Niland. Financial and management difficulties in the past have resulted in violations related to exceedances in E. coli (bacteria), copper, and thallium which culminated in a Cease and Desist Order in 2009 and amended in 2012.

Copper is a ductile metal with very high thermal and electrical conductivity. Since November 2005 the District has had Copper exceedances. A review of the last two years of Copper testing shows that most of the months there are measurable concentrations of Copper leading to the conclusion that Copper exceedances are likely to be a chronic problem since a point source has not been able to be identified.

Thallium is a metal that is found in ores that contains other elements and is mostly found in discharges from electronics, glass and drug factories. Thallium is very toxic. The Regional Board, with assistance from the engineering firm Tetra Tech carried out a Pretreatment Program Needs Assessment which was also unable to identify a source for the Thallium contamination.

Historically, the NCSD has had several E. Coli test exceedances but since 5/31/2011 no bacteria testing violations have occurred (through 7/1/13)<sup>2</sup>. The plant uses 12.5% sodium hypochlorite (liquid bleach) in a chlorine contact basin for disinfection. High temperatures can lead to decomposition of sodium hypochlorite stability if not stored properly. Adding a shade shelter will allow the operators to use less bleach during the summer months.

A Supplemental Preliminary Engineering Report (PER) was completed in September 2016 analyzing various improvement alternatives to address deficiencies in the wastewater treatment plant. The preferred alternative identified in the PER includes a rehabilitation of various components of the existing treatment plant and the installation of three new evaporation ponds. The PER examined all lands surrounding the existing wastewater treatment plant for suitability and feasibility. Parcels to the north were excluded because of the presence of Alcott Road separating those parcels from the existing treatment plant. The parcel to the east is owned by the State of California and is currently under active agricultural production. The parcels to the south and to the west are owned by the Imperial Irrigation District (IID) and are not currently being cultivated. A portion of the parcel to the west (APN 021-200-005) was ultimately selected as the preferred location to minimize earthwork and maximize cost efficiency.

The existing treatment facility was constructed in 1993 with a permitted capacity of 0.5 million gallons per day (MGD). Improvements to the Niland County Sanitation District's (NCSD) wastewater treatment system are being proposed to address exceedances discharge contamination from E. coli (bacteria), copper, and thallium. Planned improvements include the rehabilitation of sections of the existing sanitary sewer collection system, critical components of the wastewater treatment plant, and the construction of three evaporation ponds on an approximate 56-acre parcel of land adjacent to the existing wastewater treatment plant (WWTP). Land will be acquired from



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the Imperial Irrigation District through a land swap agreement. The proposed improvements are not capacity enhancing and no additional treatment capacity is proposed. Refer to Exhibit B on page 16 for Site Plan showing the proposed improvements.

The evaporation ponds would add an additional step to the treatment process to eliminate wastewater discharge into the natural environment and eliminate the need for a National Pollutant Discharge Elimination System (NPDES) Permit. Effluent from the existing WWTP will be pumped via a new pump station and deposited into the three large open basins allowing water to evaporate through solar radiation and wind. Each of the three, 10-acre water surface evaporation ponds to accommodate an average annual flow of 150,000 gallons per day with a peak monthly flow of 200,000 gallons per day with sufficient freeboard to store water during the cool wet winter months for evaporation during the summer. Approximately 50 mg/L suspended solids per day will accumulate in the evaporation basins and as water naturally evaporates the solids will compact as they settle to the bottom of the basin. It is projected that approximately five inches of solids per year will accumulate when the basins are operating at full capacity assuming that the solids will compact to a concentration of about 5,000 mg/L. The accumulated solids will be cleaned out and disposed at the land fill once every five years.

The County of Imperial, along with the former District were able to obtain grant funding from the Border Environment Infrastructure Fund (BEIF) Project Development Assistance Program (PDAP) to pay for improvements to the wastewater treatment plant. The Niland County Sanitation District is currently applying for funding from the Clean Water State Revolving Funds (SRF). Once funding is approved, it is anticipated that construction will begin during the first quarter of 2020 and be completed within nine months.

### **C. Environmental Setting:**

The project site encompasses an area of approximately 73.36 acres located approximately 0.5 mile south and 0.38 mile west of the unincorporated townsite of Niland. Niland is located in Imperial County, approximately 45 miles north of the California-Mexico border, in the Imperial Valley of Southern California. State Highway 111 runs north and south along the western portion of the community and is the main arterial in Niland. The Salton Sea is located approximately two miles to the west. The town, as well as the project site, is bordered to the east and northeast by agricultural fields and the Salton Sea to the west, and extensive agricultural development of the Imperial Valley to the south. Niland consists of quiet residential areas and limited commercial activities centralized around Highway 111. The community relies heavily on agricultural employment and government assistance as a source of income and is considered an economically disadvantaged community. The current population in Niland is currently estimated to be 1,145 people according to the US Census American Community Survey (ACS).

The Niland County Sanitation District (NCSD) provides wastewater collection and treatment services to residents of the Niland community. The NCSD owns and operates approximately six miles of sewer collection lines, one lift station, and a wastewater treatment plant located at 125 West Alcott Road. The plant is bounded by Orban Street to the west, Luna Road to the east, and Pound Road to the south. Treated wastewater is discharged into the "R" Drain, owned and operated by the Imperial Irrigation District. The Niland Sanitary Sewer District owns and operates the WWTP from two parcels at this location which is located approximately  $\frac{3}{4}$  of a mile southwest of the developed areas in the Niland community. The existing site occupies nearly 17 acres and another 57 acres will be added to the site for a total project site of nearly 74 acres.

The proposed project is adjacent to productive agricultural and developed lands. Agricultural irrigation water is available to land base in the vicinity of and within the project area. Farming operations in this area generally consist of medium to large-scale crop production with related operational facilities. Crops generally cultivated in the area may include alfalfa, barley, and/or Bermuda grass in any given year. The area surrounding the project site further has soils that are considered valuable for agricultural production. Although there is no Prime Farmland within the project vicinity which would have the best combination of physical and chemical features able to sustain long term agricultural production, there is Farmland of Statewide Importance within the project area. Similar to Prime Farmland, this land has the soil quality, growing season, and moisture supply needed to produce sustained high

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yields but contains minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland within the project area is considered to be most fertile, as identified by the Farmland Monitoring Map Program

There are rural residential homes within the vicinity of the project area. An area to the northeast of the project site is zoned R-1-U (Low Density Residential with Urban Overlay) and is sparsely developed with country homes. There are approximately eight of these homes within a half-mile radius of the project site.

Niland and the Imperial Valley are located between the Salton Sea, which lies to its north, the Anza-Borrego Desert State Park, which lies to the west, the Chocolate Mountains which lie to the northeast and the U.S./Mexican Border which constitutes its most southern boundary. The project site is located in the Imperial Valley portion of the Salton Trough, a topographic and geologic depression resulting from large scale regional faulting. Land in and around Niland is primarily flat, with several gently rising hills. The topography in the area has a gradual downward slope trending southwest, with an average slope across the town of less than 1 percent. According to the US Geological Survey data, the elevation in the Niland project area is generally between 125 and 150 feet below sea level. The Niland WWTP is at an approximate elevation of -178 feet.

Geological resources typically consist of surface and subsurface materials and their inherent properties. Imperial County, in general, is underlain by three natural geomorphic provinces: the Peninsular Ranges, the Colorado Desert, and the Mojave Desert. Each of these provinces is a naturally defined geologic region that displays a distinct landscape or landform with defining features based on geology, faults, topographic relief, and climate. Tectonic activity that formed the Trough continues at a high rate and therefore, the project site is considered likely to be subjected to moderate to strong ground motion from faults in the region. The entire Imperial Valley is seismically active and considered to be subjected to moderate and strong ground motion from earthquakes in the region. The primary seismic hazard in the Niland area is from the Brawley Seismic Zone and the San Jacinto, Elsinore, Sand Hills, Calipatria, and San Andreas Faults.

The project area is located in the Salton Sea Air Basin (SSAB) under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The SSAB is currently either in attainment or unclassified for all federal and state air pollutant standards with the exception of 8-hour ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. Imperial County is classified as a "serious" nonattainment area for PM<sub>10</sub> for the National Ambient Air Quality Standards (NAAQS). On November 13, 2009, EPA published Air Quality Designations for the 2006 24-Hour Fine Particle (PM<sub>2.5</sub>) NAAQS wherein Imperial County was listed as designated nonattainment for the 2006 24-hour PM<sub>2.5</sub> NAAQS. However, the nonattainment designation for Imperial County is only for the urban area within the County and the proposed projects is located within the nonattainment boundaries for PM<sub>2.5</sub>. On April 10, 2014, the California Air Resources Board (CARB) gave final approval to the 2013 Amendments to Area Designations for California Ambient Air Quality Standards (CAAQS). For the state PM<sub>2.5</sub> standard, effective July 1, 2014, the City of Calexico will be designated nonattainment, while the rest of the SSAB will be designated attainment.

The project area consists of the developed wastewater treatment plant site, and surrounding farmland/cultivated ruderal areas and isolated residential uses bordered by unpaved roadways and the Highway 111. One mile east of Niland, cultivated land ends and gives way to the Palo Verde Mountains. The Sonny Bono Salton Sea National Wildlife Refuge (NWR) is located 4.30 miles northwest of the project area and the Alamo River is located 4 miles southwest of the Niland Sanitary District WWTP site.

The Salton Sea State Park and State Recreation Area begin approximately 15 miles northwest of Niland and run along the shoreline of the Salton Sea. The closest Bureau of Land Management (BLM) administered land to the project area is approximately 2 miles north of Niland.

The Sonny Bono Salton Sea NWR is located between the southern tip of the Salton Sea and the entry point of the Alamo River to the Salton Sea, approximately 12 miles southwest of Niland. The refuge comprises of approximately 2,000 acres of land, divided into two distinct land parcels. Located along the Pacific Flyway, the refuge is an important host habitat to seasonal and migratory birds. Over 400 bird species have been recorded at

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the refuge, in addition to 41 species of mammals, 18 species of reptiles, 4 species of amphibians, and 15 species of fish (USFWS 2015).

The closest protected habitat to the project area is the Wister Waterfowl Management Area, an element of the Imperial Wildlife Area, approximately 0.5 miles northwest of Niland. The CDFG maintains the Imperial Wildlife Area, a 7,929-acre area that contains salt marshes, freshwater ponds, and desert scrub. The Imperial Wildlife Area provides habitat that supports nearly 400 different species. The Wildlife Area was created in 1954 in order to safeguard habitat for migratory birds, alleviate crop damage to adjacent farms, and to offer recreation opportunities.

Archaeological resources within Imperial County can be classified into two distinct sections: prehistoric and historic. Prehistoric archeology relates to aboriginal culture and systems which existed prior to Spanish colonization in 1769. Historical archeology deals with uncovering facts for which there is no known historical documentation. The most important feature in the study of the prehistory and history of Imperial County is Lake Cahuilla, the modern iteration of which is the Salton Sea. This enormous lake periodically formed when flooding in the Colorado River broke through low-lying areas and flooded the Salton Trough, inundating up to an average elevation of about 40 feet above mean sea level. Because Lake Cahuilla was a rare source of fresh water in the desert, human populations would have been attracted to live and gather plant and animal resources near the lake. Human occupation sites mark the ancient shorelines both above the high stand mark and along the lower, retreating shorelines.

#### **D. Analysis:**

The project was previously reviewed in an Initial Study in June 2013. An Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act (NEPA) was also prepared and adopted by the US Environmental Protection Agency (USEPA), US Department of Agriculture (USDA), and the Border Environment Cooperation Commission (BECC) in May 2016. The EA resulted in a Finding of No Significant Impact (FONSI).

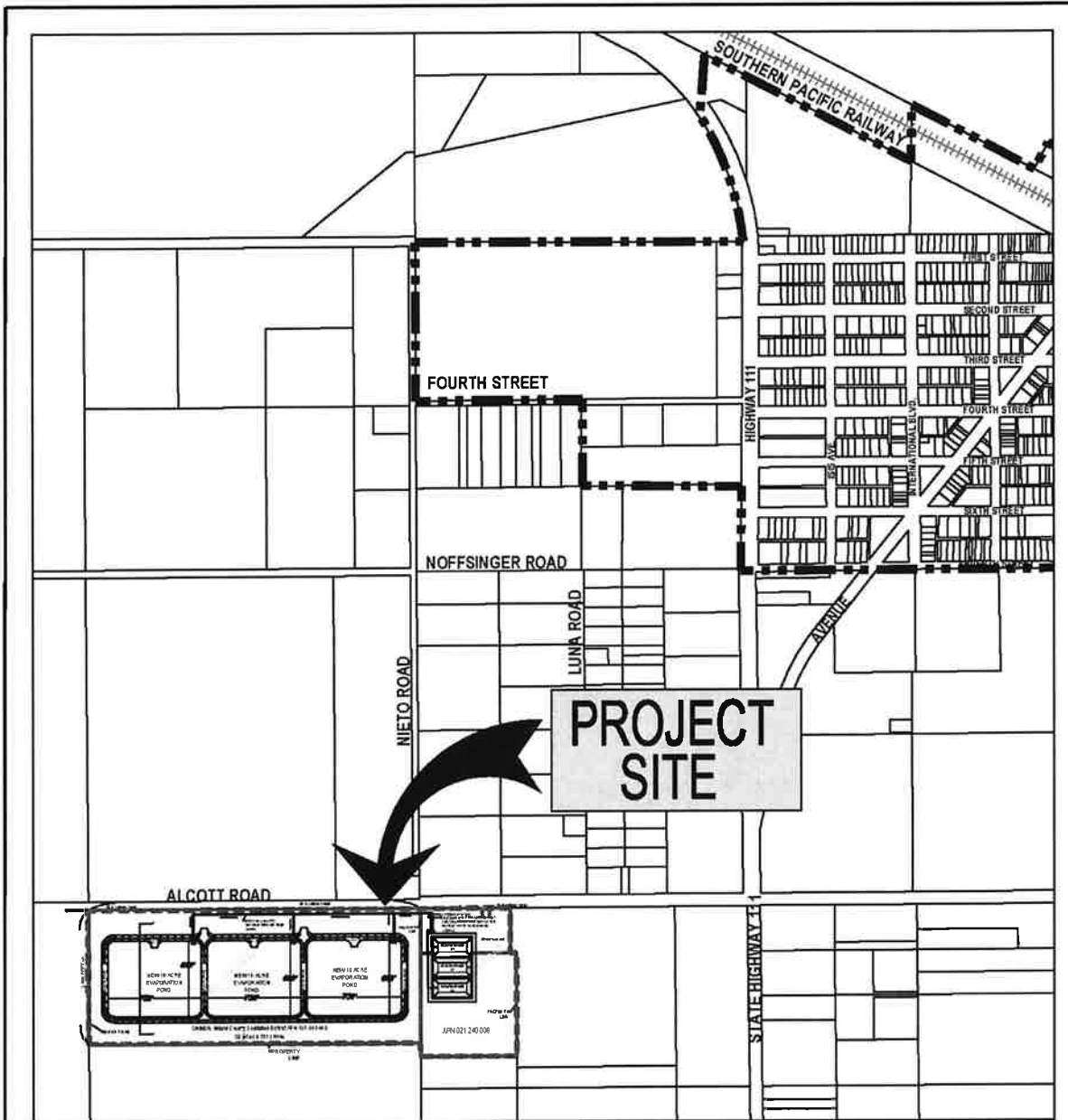
#### **E. General Plan Consistency:**

The Land Use Element of the General Plan designates the area for agricultural land uses. The Land Use Compatibility Matrix identifies special facilities such as wastewater treatment as being conditionally compatible within areas designated for agricultural land use. This is supported by Zoning Code which requires a Conditional Use Permit for wastewater treatment plant in the A-2 (General Agriculture) zone.

Goal #8 of the Land Use Element is to coordinate local land use planning activities among all local jurisdictions and state and federal agencies. Furthermore, Goal #8.7 is to ensure the development, improvement, timing, and location of community sewer, water, and drainage facilities will meet the needs of existing communities and new developing areas. The purpose of the improvement project is to correct deficiencies in the Niland wastewater treatment and to ensure compliance with state and federal requirements related to wastewater discharge.

Protection of environmental resources is an important goal covered in Goal #9 of the Land Use Element. Significant natural, cultural, and community character resources and the County's air and water quality are to be identified and preserved. As shown in this Initial Study and Mitigated Negative Declaration, mitigation measures are included to ensure that impacts to the environment are minimal.

# Exhibit "A" Vicinity Map



LEGEND:

————— **NILAND SERVICE AREA**      - - - - - **PROJECT LOCATION**

<p><b>The Holt Group, Inc.</b> ENGINEERING · PLANNING · SURVEYING</p> <p>1601 N. Imperial Ave. El Centro, California 92243 (760)337-3183</p>	<p>NOT TO SCALE</p>	<p>NILAND COUNTY SANITATION DISTRICT</p>	<p><b>VICINITY MAP</b></p> <p>PROJECT No. 542.090 DATE : May 2019</p>
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## EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance

**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?

*There are no designated scenic highways in Imperial County (California Department of Transportation 2012). State Route 111 is considered eligible for scenic highway designation, approximately 15 miles north of the project site, where the roadway runs adjacent to the Salton Sea. The project site would not be visible from eligible portions of the highway. Additionally, the project site is not located within a scenic vista. The nearest major roadway is State Route 111, which is located approximately 0.5 miles to the east and contains limited views of the existing WWTP and project site. Therefore, the project would not create impacts and no mitigation measures are required.*

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

*The proposed project would not substantially damage scenic resources, nor is the site adjacent to designated or eligible state or federal scenic highway (see response to 1a). Therefore, the project would not create impacts and no mitigation measures are required.*

- 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 project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

*The project site is within the fenced boundaries of an existing WWTP; therefore, the proposed expansion would be consistent with the visual character of the site. Views in the vicinity are characteristic of the region, dominated by low lying agriculture in the foreground with desert mountains in the background. The low height profile of the proposed expansion of the NCSW WWTP would not constitute a substantial shift in the viewshed from State Route 111 and nearby residences. Additionally, structures located within the WWTP site that are no longer required would be removed. Therefore, the low visual sensitivity of the project vicinity and the low-profile of the proposed project would result in less than significant impacts.*

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

*The project does not contain substantial new sources or light or glare that would adversely affect day or nighttime views. Therefore, the project would not create impacts and no mitigation measures are required.*

**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 affected land is located entirely within the existing 17.46-acre NCSW WWTP site and is not considered "Prime Farmland", "Unique Farmland", or "Farmland of Statewide or Local Importance" (California Department of Conservation [CDC] 2007). The project site is designated by the state of California's Important Farmland Map as "Other" (i.e., developed land). Additionally, the project is intended to serve the existing NCSW service area and would therefore not result in additional development that could result in the conversion of agricultural lands to non-agricultural uses. Therefore, the project would not create impacts and no mitigation measures are required.*

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

**The existing parcel is not within a Williamson Act contract. While the site is zoned for agriculture, the proposed project would be consistent with the existing use of the site for wastewater treatment. Further, WWTPs are considered acceptable uses within agriculturally zoned lands. Therefore, implementation of WWTP improvements would be consistent with existing land use and would not conflict with surrounding agricultural land use.**

- 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))?

**No forest land is located within or in the vicinity of the project site. Therefore, the project would not create impacts and no mitigation measures are required.**

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

**No forest land is located within or in the vicinity of the project site. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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 WWTP improvement project will not convert agricultural lands, nor impact existing agricultural uses or activities. Improvements are intended to address operational deficiencies and would not result in an expansion of the NCSD service area that would potentially result in conversion of agricultural lands to residential or other uses. Therefore, the project would not create impacts and no mitigation measures are required.**

### III. AIR QUALITY

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 WWTP improvement activities would result in short-term construction emissions over a period of approximately 8 months, which would remain below Imperial County thresholds. Long-term emissions would be minimal. Therefore, the project would be consistent with the Imperial County Air Pollution Control District (ICAPCD) "Air Quality Attainment Plan" for projected emissions from proposed project activities.**

- 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?

**Implementation of the proposed project, if conducted simultaneously with pending and proposed projects in the region, would have the potential to cumulatively impact air quality in the immediate area; however, impacts would be short-term, and the use of standard Imperial County MMs would reduce impacts to less than significant levels. In addition, the proposed wastewater system improvements would constitute a minor contribution towards cumulative impacts, given the scale and potential effects of proposed projects.**

- c) Expose sensitive receptors to substantial pollutants concentrations?

**The nearest sensitive receptors to the proposed project are residences located approximately 1,200 feet to the north of the WWTP site. Buffer requirements for WWTPs range from 250 to 1,000 feet from sensitive receptors (residential properties). The residence located nearest the Niland WWTP is approximately 1,600 feet northeast of the existing WWTP and it is anticipated that the project's short-term air quality impacts would negligibly affect sensitive receptors. No mitigation measures are required with implementation of standard MMs required by the Imperial County APCD.**



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

*The proposed percolation ponds associated with the proposed project have the potential to generate odors. Hydrogen sulfide and ammonia-based compounds are common odor pollutants emitted from WWTPs. Under the proposed project, the percolation ponds would be constructed approximately 3,500 feet southwest of Niland, and approximately 1,200 feet southwest of the nearest residences. Despite this buffer, the potential for odors to occur to adjacent residences and within Niland exists under the proposed project; however, the project setback exceeds the EPA-prescribed 1,000-ft setback. Therefore, long-term operation of the proposed WWTP improvements under the proposed project may increase odors beyond baseline conditions but would generate less than significant odor effects for sensitive receptors. Therefore, no mitigation measures need be considered.*

**MITIGATION MEASURES (for a and b):**

*The following mitigation measures are intended to reduce air quality impacts for the proposed project. The project must adhere to Rule 310 and a "Fugitive Dust Control Plan" shall be submitted to the ICAPCD 10- days prior to any earthmoving activity with dust emissions limited to 20% opacity at all times. A copy of the "Fugitive Dust Control Plan" shall be kept at the site at all times. The on-site contractor shall obtain ICAPCD's approval of all applicable permits in order to reduce future emissions relating to the grading/construction activities, prior to issuance of building permits, to a less than significant level.*

**Mitigation Measures for Dust Control and NOx:**

- **AQ-1 Fleet Modernization for On-road Haul Trucks.**
  - Trucks hauling materials such as debris or fill shall sprinkle to mitigate blowing dust prior to leaving the site.
  - Idling shall be restricted to a maximum of 5 minutes when not in use.
  - All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used on-site or to transport materials to and from the site shall comply with CARB 2010 on-road emission standards, where available.
- **AQ-2 Fleet Modernization for Off-road Equipment.**
  - All off-road equipment used at the site shall meet current requirements of CARB's OFF-ROAD diesel regulations.
  - Idling shall be restricted to a maximum of 5 minutes when not in use.
- 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 adjacent paved roads.
- 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% opacity for dust emission by paving, chemical stabilizers, dust suppressants and/or watering.

**ICAPCD Measures for Construction Combustion Equipment**

- Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel-powered equipment.
- 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). Should any transformers/generators be used on-site, an Authority to Construct/Permit to Operate application shall be submitted to the APCD.

- Construction equipment operating on-site should be equipped with two to four-degree engine timing retard or pre-combustion chamber engines.
- Construction equipment used for the project should utilize EPA Tier 2 or better engine technology.
- Keep vehicles well maintained to prevent leaks and minimize emissions and encourage employees to do the same.

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?

***Construction activities associated with the proposed project would be temporary and would occur within the existing WWTP site, which is a disturbed area and contains no native habitat. The impact of most concern regarding wildlife would be indirect noise and dust related to construction; however, this impact would be temporary. Species that use adjacent agricultural land or residential areas are typically those that are accustomed to human presence and thus have a low potential for being impacted by the project. Ground disturbance is anticipated to result in low levels of siltation in the R-Drain and adjacent agricultural canals; however, these impacts would be minimized through the development of a Stormwater Pollution Prevention Plan (SWPPP), which would ensure implementation of MMs, including silt fencing and suspension of construction activities during rainy periods. The proposed project is therefore anticipated to have a negligible effect on aquatic habitats.***

***The potential exists for burrowing owls to occur within the project site; therefore, a survey for burrowing owl would occur prior to construction in accordance with CDFW guidelines (Appendix B). Implementation of this mitigation measure would reduce potential impacts to a less than significant level. No other sensitive habitats or species are known to occur within the immediate vicinity of the project area.***

- 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?

***There are no riparian or other sensitive natural communities identified in any state or federal regional plans that would be adversely affected by the proposed project. Proposed improvements to the WWTP would eliminate discharge of water that is often in non-compliance for E-coli, copper, TSS, and BOD to the R-Drain. A decrease in pathogens and pollutants entering the water would incrementally improve water quality and associated aquatic and riparian habitats occurring within the R-Drain and Salton Sea. Improvements to water quality over existing conditions resulting from implementation of the project would constitute a beneficial impact to biological resources.***

- 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?

***No wetlands are present within the project site and no significant adverse impacts on federally protected wetlands through filling or other means would occur during construction activities [see comment b) above]. No mitigation measures are required with implementation of standard MMs required by the Imperial County.***

- 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?

**The project is located within an existing disturbed area adjacent to agricultural uses. Therefore, the project would not substantially interfere with the movement of any fish or wildlife species corridors or impede the use of wildlife nursery sites. No mitigation measures are required given impacts 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 project activities would occur within a previously developed site and would not conflict with any policies or ordinances protecting biological resources or tree preservation ordinance. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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?

**The project activities would not substantially interfere with or conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not create impacts and no mitigation measures are required.**

**MITIGATION MEASURES: (for a)**

**Presence/absence surveys per the California Burrowing Owl Consortium (CBOC) protocol (1993) shall be conducted prior to initiation of the project to determine the location and abundance of Burrowing Owls within the project site. The survey protocol requires a focused burrow survey to identify the potential for the area to support burrowing owls. If the survey area contains natural or man-made structures that could potentially support burrowing owls, or owls are observed during the burrow survey, then three subsequent surveys will be required. The CDFW and/or lead agency may require mitigation for impacts on Burrowing Owls or their burrows. Impacts as defined by the CBOC include the following:**

- **Disturbance or harassment within 50 meters (approx. 169 ft) of occupied burrows;**
- **Destruction of burrows and burrow entrances. Burrows include structures such as culverts, concrete slabs and debris piles that provide shelter to Borrowing Owls;**
- **Degradation of foraging habituated adjacent to occupied burrows**

**Burrowing Owls and their active burrows shall be avoided, if possible. Occupied burrows shall not be disturbed during the nesting season (February 1 – August 31) unless formally approved by CDFW. If impacts on Burrowing Owls are unavoidable, on-site mitigation in the form of passive relocation of the Burrowing Owls may be required. Passive relocation is deemed as prompting owls to move from occupied burrows within the proposed impact area to a natural or artificial burrow at least 50 meters from the impact area. This relocation can be accomplished by installing one-way doors on the burrow entrances and leaving them in place 48 hours to ensure that owls have left the burrow before the burrow is collapsed. Relocation of Burrowing Owls should only be implemented during the non-breeding season. Detailed information on passive relocation and other Burrowing Owl mitigation information can be found in the CBOC guidelines/ mitigation. With implementation of the aforementioned mitigation, impacts on Burrowing Owls would be reduced to below a level of significance.**

**V. CULTURAL RESOURCES Would the project:**

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

**There are eleven cultural resources listed in the National Register of Historic Places in Imperial County. The closest resources to the project site are located in Salton City and El Centro, approximately 25 miles west and 30 miles south of the site (National Park Service 2004). A cultural resource records search for the Niland area was conducted for the proposed project in May 2012 through the South Coastal Information Center (SCIC) within the California Historic Resource Information System. A total of 21 cultural resources surveys and studies have been conducted within a 0.5-mile radius of Niland and three have occurred within portions of the WWTP site. The results of the records search determined that there are no recorded historic resources within 0.5 miles of the project site (SCIC 2012). Therefore, no impacts to historic resources are anticipated under implementation of the proposed project.**

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

**The May 2012 cultural resource records search identified total of 21 cultural resources surveys and studies conducted within a 0.5-mile radius of Niland and three that have occurred within portions of the WWTP site. The results of the records search determined that there are no recorded prehistoric resources within 0.5 miles of the project site (SCIC 2012). Therefore, the project is not anticipated to result in an adverse change in any significant archaeological resources.**

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

**There are no human remains or formal cemeteries on-site or immediately off-site; however, during surface disturbance and construction in the event cultural resources are found, then the mitigation measures listed below shall be implemented to reduce cultural resource impacts to a less than significant level.**

**MITIGATION MEASURES: (for V.b and V.c)**

**V.b) In the event archaeological resources potentially eligible for the CRHR are encountered, surface disturbing work in the immediate vicinity of the discovery shall temporarily halt until appropriate treatment of the resource is determined by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeological monitor shall have the authority to re-direct construction equipment in the event archaeological resources potentially eligible for the CRHR are encountered.**

**V.c) In the event that human remains are encountered during ground-disturbing activities, all ground-disturbing activities in the vicinity of the find would be stopped. The County Coroner would be notified in compliance with all relevant federal regulations and as required by CEQA Guidelines, Section 156064.5(e). All parties involved would ensure that any such remains are treated in a respectful manner and that all applicable state and federal laws are followed. If human remains are found to be of Native American origin, or if associated grave goods or objects of cultural patrimony are discovered, the provisions of the Native American Graves Protection and Repatriation Act [NAGPRA] would be followed. The Native American Heritage Commission shall be asked to determine the descendants who are to be notified or, if unidentifiable, to establish the procedures for burial.**

**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?

**By its nature, evaporation ponds utilize solar energy to evaporate water. The installation of evaporation ponds would require the installation of additional pumps to transfer treated wastewater from the treatment facility. The pumps have minimal energy demand and would only operate at limited times. Additional energy use may be required to occasionally aerate the ponds, but this only occurs sporadically. Thus, there would be no impact to energy resources.**

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

**Energy demands are de minimis (as noted in VI.a. above) and therefore would not conflict or obstruct local 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?

**No known active faults are located in the project area and no Alquist-Priolo Earthquake Fault Zoning has been established by the State for the planning area. Consequently, based on documented conditions the potential**



*for ground rupture is low. However, numerous faults and a seismic zone are located in the vicinity of Niland and the proposed project area would potentially be affected by ground shaking from these faults (California Department of Conservation 2008). Therefore, the proposed facilities would be constructed in accordance with the California State Building Code (Title 24 of the California Administrative Code), which contains specifications to minimize adverse effects due to ground shaking from earthquakes and liquefaction. No mitigation measures are required with implementation of standard building code standards as required by Imperial County.*

- 2) Strong Seismic ground shaking?

*The site is located in Imperial Valley which experiences earthquakes on a daily basis; therefore, the site may be subject to strong seismic ground shaking. No residential structures or habitable structures would be constructed as part of this project, which would reduce the potential risk of loss, injury or death to less than significant. No mitigation measures are required with implementation of California State Building Code standards as required by Imperial County.*

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

*The potential for seismic-related ground failure, liquefaction or a seiche/tsunami is not considered to be significant; however, a geotechnical study is currently being performed and the project would be constructed in accordance with the California State Building Code, which would reduce impacts to less than significant [see comment 1) above].*

- 4) Landslides?

*There is no potential for landslides due to the relatively flat topography of the site and vicinity. Therefore, the project would not create impacts and no mitigation measures are required.*

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

*Soil disturbance associated with short-term construction activities would occur on non-prime soils. Erosion would be lessened through standard erosion control MMs (refer to Appendix B), and provisions to prevent soil erosion would be incorporated into the SWPPP to be developed prior to construction. Operation of the proposed project would not result in substantial exposure of vegetated soil or contain substantial runoff that would result in potential soil erosion or loss of topsoil. Therefore, with implementation of the MMs, impacts would be less than significant.*

**MITIGATION MEASURES: (for VI.b)**

*A geotechnical investigation of the project site shall occur prior to implementation of the project to determine the precise soil conditions. Based on the results of this investigation, appropriate design measures shall be incorporated into final engineering and Stormwater Pollution Prevention Plan of the WWTP improvements. Temporary soil stabilization measures shall be implemented at regular intervals throughout the defined rainy season to achieve and maintain the contract's disturbed soil area requirements. When the project's Special Provisions require it, temporary soil stabilization BMPs will be implemented 20 days prior to the defined rainy season. Non-active areas shall be stabilized within 14 days of cessation of construction activities.*

- 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?

*A geotechnical investigation of the project site will be required to determine the precise soil and groundwater conditions (refer to mitigation measures below). Based on the results of this investigation, appropriate design and construction measures would be implemented to ensure that impacts would be less than significant.*

- d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial direct or indirect risk to life or property?

*A geotechnical investigation of the project site will be required to determine the precise soil and groundwater conditions (see to mitigation measures below). Based on the results of this investigation, appropriate design and construction measures would be implemented into the final engineering design to ensure that impacts would be 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?

**A geotechnical investigation of the project site will be required to determine the precise soil and groundwater conditions (see to mitigation measures below). Based on the results of this investigation, appropriate design and construction measures would be implemented to ensure that impacts would be less than significant.**

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

**There are no paleontological resources or unique geologic features within the vicinity of the project site and therefore would not result in any adverse impacts.**

**MITIGATION MEASURES: (for VI.c, VI.d, and VI.e)**

**VI.c), VI.d), and VI.e) A geotechnical report shall be prepare and based on the results of the geotechnical investigation of the project site, appropriate design and measures shall be incorporated into final engineering and design of the WWTP improvements.**

**VIII. GREENHOUSE GAS EMISSION Would the project:**

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

**Based on the CALCEmod modeling of the project, short-term construction is anticipated to result in approximately 210.9 tons of GHGs per year during construction. Operational GHG emissions are anticipated to be approximately 565.5 tons per year (Appendix A). These amounts would not be significant on a local or regional scale or conflict with applicable plans or policies. Therefore, the project would not create impacts and no mitigation measures are required.**

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

**The project activities are not anticipated to conflict with a GHG plan, policy or regulations for reducing GHG emissions. Therefore, the project would not create impacts and no mitigation measures are required.**

**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?

**Upon implementation of the proposed project, waste conveyed to the wastewater treatment system would be contained within the system until fully treated. No newly introduced hazardous chemicals would be used or stored in the maintenance of operation of the WWTP. The percolation ponds would need to be drained and waste sludge (bio-solids) removed two to four times per year and it is anticipated that bio-solids would either be land-applied or disposed of at an appropriate landfill. Appropriate disposal of bio-solids would be determined in a Bio-Solids Management Plan, which would be developed as part of the final WWTP improvements design and would be consistent with local, state, and federal regulations. Other hazardous waste that would potentially be created, disturbed, moved, or used as part of the proposed project would be treated or disposed of with the appropriate permit and in accordance with the Resource Conservation and Recovery Act 42 USC 6901- Treatment, Storage, or Disposal of Hazardous Wastes. The project would eliminate the discharge of untreated or partially treated wastewater into the environment and would constitute a beneficial impact to disposal of hazardous materials.**

- 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?

**The proposed activities are not anticipated to create a significant hazard by releasing hazardous materials into the environment through implementation of appropriate standard procedures [see comment a) above]. The project would eliminate the discharge of untreated or partially treated wastewater into the environment and would constitute a beneficial impact to management of hazardous materials.**

- 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 intended to improve the management of waste. No school, existing or proposed is located within one-quarter of a mile from the project site. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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?

**The existing project site is not located on a list of hazardous materials site and is not in the vicinity of a hazardous materials site; therefore, the project would not create a significant public or environmental hazard.**

- 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 project site is not located within an airport land use plan or within two miles of a public airport or a public use airport. Therefore, the project would not create impacts and no mitigation measures are required.**

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

**The proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the project would not create impacts and no mitigation measures are required.**

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

**The project would not expose people or structures to a significant loss, injury or death involving wildland fires. Therefore, the project would not create impacts and no mitigation measures are required.**

**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?

**Short-term impacts to surface water could result from run-off related to construction of the proposed wastewater treatment system improvements. Ground-disturbing activities associated with the proposed project would involve new construction of percolation ponds, an approximately 326-feet by 150-feet and 5-feet deep emergency overflow pond, an effluent pump station and a 6-inch PVC C-900 force main. Site preparation activities (e.g., grading, trenching) and construction would result in temporary exposure and compaction of soils, affecting surface water drainage flow patterns and percolation rates. In addition, a SWPPP would be developed prior to construction that would outline and ensure application of MMs, potentially including silt fencing, and suspension of construction activities during rainy periods, which would mitigate the effects of increased surface water runoff and sedimentation.**

**Implementation of the proposed project is intended to address compliance issues associated with the requirements of the existing WWTP's NPDES permit and requirements of the RWQCB, thereby reducing the potential for under-treated wastewater to enter the environment. The project would convert the existing Niland WWTP from a surface water discharge plant, with treated effluent currently discharging to the R-Drain, to an onsite land discharge system. Implementation of the project would involve the discharge of treated wastewater into percolation ponds (land effluent discharge), where treated wastewater would enter the groundwater or evaporate. Land disposal would offer additional treatment and eliminate**

**the discharge of wastewater to the R-Drain that is often in non-compliance with standards established for E-coli, copper, TSS, and BOD. High levels of pathogens and other pollutants currently found in the R-Drain, and consequently in the Salton Sea, would be reduced upon implementation of the proposed project. Therefore, the project would eliminate a source of water quality degradation in violation of standards and would constitute a beneficial impact to the operation and management of waste discharge.**

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

**A geotechnical investigation of the project site would occur prior to implementation of the project to determine the precise soil and groundwater conditions (see mitigation measure X.b below). Based on the results of this investigation, appropriate design and construction measures would be implemented to ensure that impacts would be less than significant.**

- 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 result in substantial erosion or siltation on- or off-site?

**The proposed activities will not substantially alter the existing drainage pattern of the site/area, or substantially alter the course of the R-Drain or other vicinity waterways resulting in substantial on- or off-site flooding. Therefore, the project would not create impacts and no mitigation measures are required.**

- (i) 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 activities will not create or contribute runoff water or provide substantial additional sources of polluted runoff as described in IX.a). Therefore, the project would not create impacts and no mitigation measures are required.**

- (ii) impede or redirect flood flows?

**The proposed activities will not occur within a 100-year flood hazard area or delineated map area (FEMA 2008); therefore, no impact would occur.**

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

**The project site is not located within a 100-year flood hazard area as noted above. The project site is not located within a low-lying coastal and therefore would not be subject to tsunami. The project site is within the vicinity of the Salton Sea, but no occurrences of seiches at the Salton Sea have been documented. Therefore, there is no risk of pollutant release due to project inundation.**

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

**The project is subject to compliance with all local, state and federal laws. No component of the project conflicts with or obstructs the implementation of a water quality control plan or sustainable groundwater management plan**

**MITIGATION MEASURES: (for X.b)**

A geotechnical investigation of the project site shall occur prior to implementation of the project to determine the precise soil and groundwater conditions. Based on the results of this investigation, appropriate design and measures shall be incorporated into final engineering and design of the WWTP improvements.



Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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XI. **LAND USE AND PLANNING** *Would the project:*

- a) Physically divide an established community?

**The proposed project will not divide an established community as all proposed development will occur within an existing vacant parcel. There are rural residential homes to the north of the project site but there are not other residential structures on other sides of the project site. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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?

**The proposed project is located within the area of the existing NCSD WWTP and within a currently vacant site. WWTPs are permitted within A1 zoned lands with a Conditional Use Permit. The project would not conflict with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect.**

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?

**The proposed project would not result in the loss of availability of a known valuable mineral resource. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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 will not result in a loss of availability of a mineral resource recovery site in a general plan, specific plan or other land use plan. Therefore, the project would not create impacts and no mitigation measures are required.**

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?

**Implementation of the proposed project would entail construction of two percolation ponds and an emergency overflow basin, as well as a lift station and 6-inch force main, which would require trenching, soil movement, pipe laying, and other similar construction activities over a 12-month period. Noise would occur during the construction of the lift station, force main, percolation ponds and emergency overflow basin; however, such impacts would be short-term and would occur largely along existing roadways adjacent to farmland, which is not considered a sensitive receptor. During construction, implementation of the proposed project would result in noise levels that are higher than existing ambient levels. However, construction noise generated during implementation of the proposed project would be short-term and temporary and would be reduced through standard Imperial County MMs for noise attenuation (e.g., the use of equipment sound mufflers and restriction of construction activity to normal working hours). The project would be required to comply with Imperial County Noise Element standards, which apply to noise measured at the nearest sensitive receptor (typically adjacent residences). County standards would require construction equipment operation to be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 9 a.m. to 5 p.m. Saturday, unless the Director of the Planning and Development Services Department directs otherwise. No commercial construction operations are permitted on Sunday or holidays (Imperial County 2008). Therefore, short-term noise impacts would be reduced to less than significant levels.**

**Long-term operational noise of the lift station under the proposed project would result in a new source of noise; however, noise generated would be consistent with the operation of WWTP machinery. Noise buffer requirements for WWTPs range from 250 to 1,000 feet from sensitive receptors (residential properties), depending on the noise controls included in the WWTP design. The residence located nearest the Niland WWTP is approximately 1,600 feet northeast of the existing WWTP and it is anticipated that the proposed project would negligibly increase noise associated with the WWTP. Resulting noise generation and exposure would therefore be less than significant.**

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**The proposed project would not expose people to excessive groundborne vibration or groundborne noise and with the implementation of standard Imperial County MMs (see discussion XIII.a); therefore, impacts would be 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**The nearest airport to the project site is the Cliff Hatfield Memorial airport which is approximately 6.75 miles from the project site. There are no private airfields within proximity of the project. Therefore, there would no impacts.**

**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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**The proposed project is intended to serve the existing residents and clients within the NCSD service area. Implementation of proposed project would result in the construction of wastewater treatment system improvements, thereby reducing the discharge of pathogens and other pollutants to the environment. For project development, construction crews would likely be hired from the available pool of workers in Niland, Brawley, El Centro, and other nearby communities, resulting in an increase in short-term construction employment. Construction and development activities would likely provide temporary employment and economic activity in Niland. Maintenance and upkeep of the additional WWTP infrastructure would be conducted by existing NCSD staff; however, one part-time bookkeeper (or other staff) shall be hired to assist with the new billing process. Therefore, the project is not anticipated to directly or indirectly result in substantial population growth. Therefore, the project would not create impacts and no mitigation measures are required.**

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**The proposed project would not displace any housing unit. It will not displace any population, as the project would be constructed within the fenced boundaries of the existing WWTP. Therefore, the project would not create impacts and no mitigation measures are required.**

**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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**The proposed project would not result in substantial adverse physical impacts on new or physically altered governmental facilities. Therefore, the project would not create impacts and no mitigation measures are required.**

1) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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**The proposed project would result in improvements to the existing WWTP and would not result in the requirement of new fire protection facilities or service capabilities in Niland or County areas. Therefore, the project would not create impacts and no mitigation measures are required.**

2) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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**The proposed project would result in improvements to the existing WWTP, within the fenced boundaries of the existing facility and neighboring vacant lot; therefore, the project would not result in the requirement of new police protection facilities or service capabilities in Niland or County areas. Therefore, the project would not create impacts and no mitigation measures are required.**

3) Schools?

**The proposed project would not result in the inducement of new population growth that would require the construction of new or alter the existing school system. Therefore, the project would not create impacts and no mitigation measures are required.**

4) Parks?

**The proposed project would not require the construction of any new parks in the vicinity of the project site. Therefore, the project would not create impacts and no mitigation measures are required.**

5) Other Public Facilities?

**The proposed project would not require the construction of any new or alter any existing public facilities. Therefore, the project would not create impacts and no mitigation measures are required.**

**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?

**The proposed project would provide improved wastewater treatment services to Niland. Since the proposed project would not directly induce growth and would constitute a less than significant impact to population and housing, the project would not increase the use of existing regional parks and other recreational facilities. Therefore, the project would not create impacts and no mitigation measures are required.**

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment?

**The proposed project would not include recreational facilities or need to construct or expand existing recreational facilities. Therefore, the project would not create impacts and no mitigation measures are required.**

**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?

**Under proposed project, construction activities would occur within the Niland WWTP site, away from existing major roadways. It is anticipated the construction vehicles would access the site regionally from SR-111 to Alcott Road to the project site. During construction, a less than significant increase in construction relation traffic would occur. During construction, roadway access to Alcott Road by residents or users of the area would potentially be temporarily restricted during movement of construction equipment or larger infrastructure components. Short-term impacts regarding access would be minimized by the use of standard engineering and traffic management practices and adherence to the Engineering Design Guidelines Manual for the Preparation and Checking of Street Improvement, Drainage, and Grading Plans within Imperial County. Once operational, the proposed project would not impact roadways or other transportation methods. Therefore, the project would not conflict with a plan, ordinance, or policy for performance of the circulation system, taking into account all modes of transportation, mass transit, non-motorized travel, intersections, highways, freeways, pedestrian and bicycle paths and would not create impacts. No mitigation measures are required.**

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

Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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**The proposed project would not conflict or be inconsistent with the CEQA Guidelines section 15064.3, subdivision (b). Therefore, the project would not create impacts and no mitigation measures are required.**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Substantially increases hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**The proposed project does not involve the redesign or modification of the existing road network. There would be no changes therefore no increase in hazards would occur. Therefore, the project would not create impacts and no mitigation measures are required.**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**The proposed project does not involve the redesign or modification of the existing road network. Therefore, the project would not create impacts and no mitigation measures are required.**

**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: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (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  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**The proposed project does not cause any substantial adverse change in any cultural site, feature, place, cultural landscape or a place of cultural value to a California Native American tribe. There are eleven cultural resources listed in the National Register of Historic Places in Imperial County. The closest resources to the project site are located in Salton Sea and El Centro, Approximately 25 miles west and 30 miles south of the site. The results of the records as resource surveys and studies have been conducted within 0.5 miles of the project site meaning no Historical Resources will be affected. Therefore, the project would not create impacts and no mitigation measures are required.**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| (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 in 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

**The proposed project applies the criteria set forth in subdivision 5024.1. The design/construction plans shall incorporate language that stipulates that if buried cultural materials are encountered during construction, work in the area must halt until a qualified archaeologist can evaluate the nature and significance of the finding.**

**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 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|



Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

**The proposed project would not increase storm water runoff and, therefore, would not require expansion of existing storm water facilities or construction of new storm water drainage systems. The project would incorporate construction of an emergency overflow pond, which would maintain capacity required for potential stormwater related overflow that could result in adverse environmental effects; therefore, impacts would be 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?

**The proposed project would not require new sources or additional quantities of water; therefore, it is anticipated that existing water supplies will remain sufficient to serve the proposed project. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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?

**Under implementation of the proposed project, improvements to the existing WWTP system would eliminate discharge of wastewater that does not meet regulatory requirements through the development of appropriate wastewater collection infrastructure. Since the NCSD is currently in non-compliance with their NPDES permit, the proposed project would have a beneficial impact on wastewater treatment services in Niland.**

- 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?

**Waste sludge (bio-solids) from the evaporation ponds would need to be removed two to four times per year and it is anticipated that bio-solids would either be land-applied or disposed of at an appropriate landfill. Appropriate disposal of bio-solids would be determined in a County-required Bio-Solids Management Plan, which would be developed as part of the final WWTP improvements design and would be consistent with local, state, and federal regulations. The project would be served by a landfill with sufficient permitted capacity to accommodate such project's solid waste disposal needs. Therefore, project impacts would not create impacts and no mitigation measures are required.**

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

**The proposed project would comply with federal, state, local statutes and regulations relating to solid waste, and would therefore result in a less than significant impact, with no mitigations required.**

**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?

**The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, the project would not create impacts and no mitigation measures are required.**

- 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

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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spread of a wildfire?

***The proposed project does not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire. Therefore, the project would not create impacts and no mitigation measures are required.***

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

***The proposed project does not require the installation or maintenance of associated infrastructure that can exacerbate fire risks or result in temporary or on going impacts to the environment. Therefore, the project would not create impacts and no mitigation measures are required.***

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

***The proposed project does not expose people or structure to significant risks as stated. There is no potential for landslides due to the relatively flat topography of the site and vicinity. Therefore, the project would not create impacts and no mitigation measures are required.***

## 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 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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.)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects,   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**which will cause substantial adverse effects on human beings, either directly or indirectly?**

#### **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
- Imperial County Air Pollution Control District
- Department of Public Works
- Fire Department
- Ag Commissioner
- Environmental Health Services
- Sheriff's Office

##### **B. OTHER AGENCIES/ORGANIZATIONS**

- Imperial Irrigation District
- Regional Water Quality Control Board

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



## V. REFERENCES

Border Environment Cooperation Commission (BECC), U.S. Environmental Protection Agency (USEPA), and U.S. Department of Agriculture – Rural Assistance (USDA). 2016. Niland Sanitary District Wastewater Treatment Plant Improvements Environmental Assessment (EA)

California Department of Water Resources. 2006. Salton Sea Draft Programmatic Environmental Impact Report.

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Imperial County Public Health Department. 2013. Health Indicators. Available at: <http://www.icphd.com/health-information-and-resources/data-&-statistics/health-status-report/>

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State of California Environmental Protection Agency (CalEPA). State Water Resources Quality Control Board (RWQCB). 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report)

## NEGATIVE DECLARATION – County of Imperial

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*The following Negative Declaration is being circulated for public review in accordance with the California Environmental Quality Act Section 21091 and 21092 of the Public Resources Code.*

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**Project Name:** Wastewater Treatment Plant Improvement Project

**Project Applicant:** Niland County Sanitation District

**Project Location:** 125 Alcott Road, Niland, CA.

**Description of Project:** Improvements to the Niland County Sanitation District (NCSD) wastewater treatment plant system. Planned improvements include the rehabilitation of sections of the existing sanitary sewer collection system, critical components of the wastewater treatment plant, and the construction of three evaporation ponds on an approximate 56-acre parcel of land adjacent to the existing wastewater treatment plant.

**VI. 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 environmental 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 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.

6-13-19 for   
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

6/13/19  
Date

## SECTION 4

### VIII. RESPONSE TO COMMENTS

(ATTACH DOCUMENTS, IF ANY, HERE)

**IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP)**

(ATTACH DOCUMENTS, IF ANY, HERE)

S:\CEQA RULES\CEQA Rules 2018\Initial Study - Environmental Checklist Template 032219.docx



AIR POLLUTION CONTROL DISTRICT



April 26, 2019

**RECEIVED**  
APR 26 2019  
IMPERIAL COUNTY  
PLANNING & DEVELOPMENT SERVICES

Jim Minnick, Director  
Imperial County Planning & Development Services  
801 Main Street  
El Centro, CA 92243

SUBJECT: CUP 19-0006 / LLA 00307—Niland Wastewater Treatment Facility Improvements

Dear Mr. Minnick:

The Imperial County Air Pollution Control District ("Air District") would like to thank you for the opportunity to review and comment on Conditional Use Permit (CUP) 19-0006 and Lot Line Adjustment (LLA) 00307 submitted by the Imperial County Public Works Department that would allow for the rehabilitation of various components of the existing Niland County Sanitation District (NCSD) wastewater treatment facility at 125 Alcott Road in Niland, California. Planned improvements include the construction of three (3) evaporation ponds on an approximately 58-acre parcel of land on the south side of Alcott Road west of Highway 111 adjacent to the existing wastewater treatment plant (WWTP). Effluent from the existing WWTP will be pumped via a new pump station and deposited into three large open basins allowing water to evaporate through solar radiation and wind.

Air District Comments

Due to the potential for fugitive dust during construction of the three evaporation ponds the Air District politely requests that the applicant adhere to Regulation VIII Fugitive Dust Rules. Regulation VIII is intended to limit fugitive dust emissions to 20% opacity.

The Air District politely asks that the applicant arrange for a meeting with Air District personnel to discuss a necessary modification to the applicant's current permit for the additional pumps. At that time the applicant can discuss with Air District personnel the proper methods to mitigate the accumulated solids from becoming airborne during a wind event.

The applicant references a Lot Line Adjustment as part of the application. Based on the submitted documents, the Air District is unclear as to what lot line(s) are to be adjusted. The Air District politely asks for clarification on this matter.

Air District rules and regulations can be found on our website at [www.co.imperial.ca.us/Air Pollution](http://www.co.imperial.ca.us/AirPollution) under the "Planning" tab. The Air District can be contacted at (442) 265-1800.

Sincerely,

A handwritten signature in blue ink that reads "Curtis Blondell". The signature is written in a cursive style.

Curtis Blondell  
Environmental Coordinator







# IID

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April 24, 2019

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APR 24 2019

IMPERIAL COUNTY  
PLANNING & DEVELOPMENT SERVICES

Mr. Patricia Valenzuela  
Planner IV  
Planning & Development Services Department  
County of Imperial  
801 Main Street  
El Centro, CA 92243

**SUBJECT:** Niland County Sanitation District's Wastewater Treatment Facility Rehabilitation (CUP19-0006/LLA00306)

Dear Ms. Valenzuela:

On April 17, 2019, the Imperial Irrigation District received from the Imperial County Planning & Development Services Department, a request for agency comments on Conditional Use Permit no. 19-0006/Lot Line Adjustment no. 00306. The applicant, Imperial County Public Works, proposes the rehabilitation of the existing Niland County Sanitation District's wastewater treatment facility located at 125 Alcott Road, Niland, CA (APNs 021-240-002-000, -001-000, -006-000 and -005-000)

The IID has reviewed the information provided and has the following comments:

1. Given that the project contemplates increasing the existing pump size at the wastewater treatment plant, the applicant should be advised to contact Ignacio Romo, the IID service planner assigned to the area, at (760) 482-3444 or by e-mail at [igromo@iid.com](mailto:igromo@iid.com) to reassess the electrical service to the treatment plant. In addition to submitting a formal application for electrical service (available at the IID website <http://www.iid.com/home/showdocument?id=12923>) considering the new motor size, motor specifications and motor starting data, the applicant will be required to submit electrical loads, panel size, voltage, project CAD files (electronic and hard copy), project schedule, estimated in-service date, applicable fees, permits, easements and environmental compliance documentation pertaining to the provision of electrical service to the project. The applicant shall be responsible for any and all costs related to providing electrical service to the project.
2. A circuit study may be required due to existing circuit capacity issues. If a circuit study determines a need for upgrades, the applicant will be financially responsible for the circuit upgrade as well as the actual service to the expanded facility. See attached map showing existing IID electrical facilities near the wastewater treatment plant.

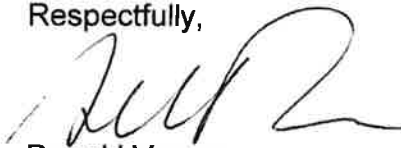
3. To insure there are no impacts to IID water facilities, an IID planning review will be required for the project in accordance with IID Water Department developer guidelines. A copy of the district's Developer Project Guide is available at <http://www.iid.com/home/showdocument?id=2328>. The applicant should be advised to submit project plans to the IID Water Department Engineering section prior to final design. For additional information regarding IID Water Department planning review, contact IID Water Dept. Engineering section, at (760) 339-9265.
4. The applicant should be advised to finalize the land swap process with IID before moving forward with the project.
5. Any construction or operation on IID property or within its existing and proposed right of way or easements including but not limited to: surface improvements such as proposed new streets, driveways, parking lots, landscape; and all water, sewer, storm water, or any other above ground or underground utilities; will require an encroachment permit, or encroachment agreement (depending on the circumstances). A copy of the IID encroachment permit application and instructions for its completion are available at <http://www.iid.com/departments/real-estate>. The IID Real Estate Section should be contacted at (760) 339-9239 for additional information regarding encroachment permits or agreements. No foundations or buildings will be allowed within IID's right of way.
6. In addition to IID's recorded easements, IID claims, at a minimum, a prescriptive right of way to the toe of slope of all existing canals and drains. Where space is limited and depending upon the specifics of adjacent modifications, the IID may claim additional secondary easements/prescriptive rights of ways to ensure operation and maintenance of IID's facilities can be maintained and are not impacted and if impacted mitigated. Thus, IID should be consulted prior to the installation of any facilities adjacent to IID's facilities. Certain conditions may be placed on adjacent facilities to mitigate or avoid impacts to IID's facilities.
7. Any new, relocated, modified or reconstructed IID facilities required for and by the project (which can include but is not limited to electrical utility substations, electrical transmission and distribution lines, etc.) need to be included as part of the project's CEQA and/or NEPA documentation, environmental impact analysis and mitigation. Failure to do so will result in postponement of any construction and/or modification of IID facilities until such time as the environmental documentation is amended and environmental impacts are fully analyzed. **Any and all mitigation necessary as a result of the construction, relocation and/or upgrade of IID facilities is the responsibility of the project proponent.**
8. Dividing a project into two or more pieces and evaluating each piece in a separate environmental document (Piecemealing or Segmenting), rather than evaluating the whole of the project in one environmental document, is explicitly forbidden by CEQA, because dividing a project into a number of pieces would allow a Lead

Patricia Valenzuela  
April 24, 2019  
Page 3

Agency to minimize the apparent environmental impacts of a project by evaluating individual pieces separately, each of which may have a less-than-significant impact on the environment, but which together may result in a significant impact. Segmenting a project may also hinder developing comprehensive mitigation strategies. In general, if an activity or facility is necessary for the operation of a project, or necessary to achieve the project objectives, or a reasonably foreseeable consequence of approving the project, then it should be considered an integral project component that should be analyzed within the environmental analysis. The project description should include all project components, including those that will have to be approved by responsible agencies. The State CEQA Guidelines define a project under CEQA as "the whole of the action" that may result either directly or indirectly in physical changes to the environment. This broad definition is intended to provide the maximum protection of the environment. CEQA case law has established general principles on project segmentation for different project types. For a project requiring construction of offsite infrastructure, the offsite infrastructure must be included in the project description. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App. 4th 713.

Should you have any questions, please do not hesitate to contact me at 760-482-3609 or at [dvargas@iid.com](mailto:dvargas@iid.com). Thank you for the opportunity to comment on this matter.

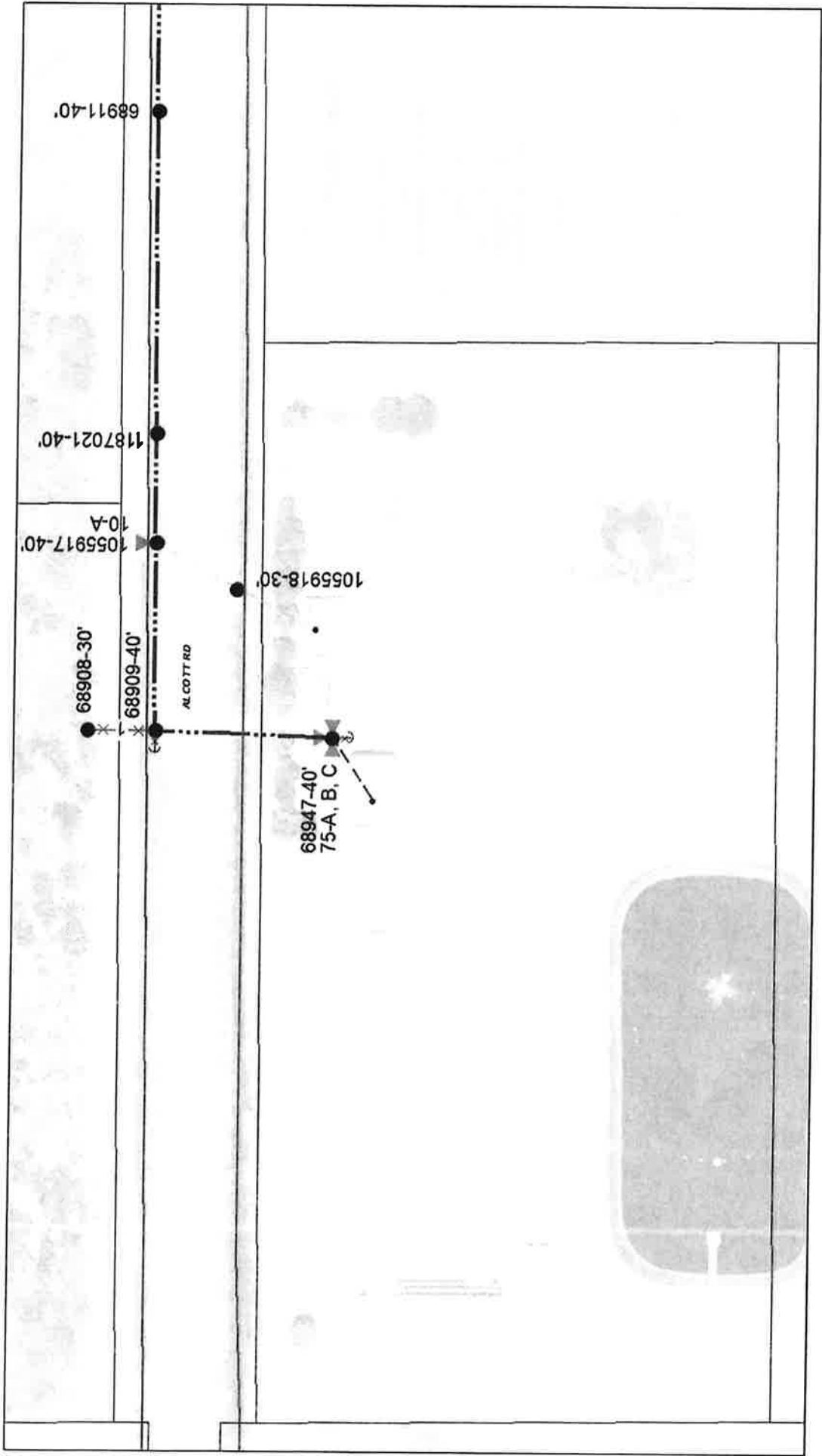
Respectfully,



Donald Vargas  
Compliance Administrator II

Enrique B. Martinez – General Manager  
Mike Pacheco – Manager, Water Dept.  
Charles Allegranza – Interim Manager, Energy Dept.  
Jamie Asbury – Deputy Manager, Energy Dept., Operations  
Enrique De Leon – Asst. Mgr., Energy Dept., Distr., Planning, Eng. & Customer Service  
Vance Taylor – Asst. General Counsel  
Robert Laurie – Asst. General Counsel  
Michael P. Kemp – Superintendent, Regulatory & Environmental Compliance  
Randy Gray – ROW Agent, Real Estate  
Jessica Lovecchio – Environmental Project Mgr. Sr., Water Dept.

EEC ORIGINAL PKG



**IID Facilities near the Project Site**





COUNTY OF  
IMPERIAL

DEPARTMENT OF  
PUBLIC WORKS

155 S. 11th Street  
El Centro, CA  
92243

Tel: (442) 265-1818  
Fax: (442) 265-1858

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May 28, 2019

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MAY 28 2019

IMPERIAL COUNTY  
PLANNING & DEVELOPMENT SERVICES

Mr. Jim Minnick, Director  
Planning & Development Services Department  
801 Main Street  
El Centro, CA 92243

Attention: Patricia Valenzuela, Planner IV

**SUBJECT: CUP 19-0006 Niland County Sanitation District / Imperial County  
Public Works**  
Located on 125 Alcott Road, Niland, CA 92257  
APN's 021-200-001/005/006-001

Dear Mr. Minnick:

This letter is in response to your submittal received by this department on May 20, 2019 for the above mentioned project. The applicant is proposing the rehabilitation of various components of the existing wastewater treatment facility.

Department staff has reviewed the package information and the following comments shall be Conditions of Approval:

1. Any activity and/or work within Imperial County Right-of-Way shall be completed under a permit issued by this Department (encroachment permit) as per Chapter 12.12 - Excavations on or Near a Public Road of the Imperial County Ordinance.

Any activity and/or work may include, but not be limited to, the installation of temporary stabilized construction entrances, access driveway, road improvements, temporary traffic control devices, etc.

2. Corner record is required to be filed with the county surveyor prior to construction for monuments:

8771. (b) When monuments exist that control the location of subdivisions, tracts, boundaries, roads, streets, or highways, or provide horizontal or vertical survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or licensed civil engineer legally authorized to practice land surveying, prior to the time when any streets, highways, other rights-of-way, or casements are improved, constructed, reconstructed, maintained, resurfaced, or relocated, and a corner record or record of survey of the references shall be filed with the county surveyor.

3. A second corner record is required to be filed with the county surveyor for monuments:

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8771. (c) A permanent monument shall be reset in the surface of the new construction or a witness monument or monuments set to perpetuate the location if any monument could be destroyed, damaged, covered, disturbed, or otherwise obliterated, and a corner record or record of survey shall be filed with the county surveyor prior to the recording of a certificate of completion for the project. Sufficient controlling monuments shall be retained or replaced in their original positions to enable property, right-of-way and easement lines, property corners, and subdivision and tract boundaries to be reestablished without devious surveys necessarily originating on monuments differing from those that currently control the area.

4. Prior to the issuance of grading and building permits, contractor shall complete the installation of temporary stabilized construction entrance, if required.
5. Drainage and Grading Plan to provide for property grading and drainage control, which shall also include prevention of sedimentation of damage to off-site properties. The grading plan shall be submitted to the Department of Public Works for review and approval. The Developer shall implement the approved plan. Employment of the appropriate Best Management Practices (BMP's) shall be included. (Per Imperial County Code of Ordinances, Chapter 12.10.020 B).
6. All on-site traffic area shall be hard surfaced to provide all weather access for emergency service protection vehicles. The surfacing shall meet the Department of Public Works and Fire/OES Standards as well as those of the Air Pollution Control District (APCD) (Per Imperial County Code of ordinances, Chapter 12.10.020 A).
7. All permanent structures shall be located outside the ultimate right of way.
- 8.

**INFORMATIVE:**

The following items are for informational purposes only. The Developer is responsible to determine if the enclosed items affect the subject project.

- All solid and hazardous waste shall be disposed of in approved solid waste disposal sites in accordance with existing County, State and Federal regulations (Per Imperial County Code of Ordinances, Chapter 8.72).
- The project may require a National Pollutant Discharge Elimination System (NPDES) permit and Notice of Intent (NOI) from the Regional Water Quality Control Board (RWQCB) prior to County approval of onsite grading plan (40 CFR 122.28).
- A Transportation Permit may be required from road agency(s) having jurisdiction over the haul route(s) for any hauls of heavy equipment and/or large vehicles which impose greater than legal loads on riding surfaces, including bridges. (Per Imperial County Code of Ordinances, Chapter 10.12 – Overweight Vehicles and Loads).

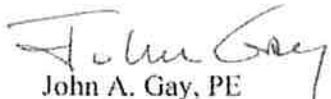


As this project proceeds through the planning and the approval process, additional comments and/or requirements may apply as more information is received.

Should you have any questions, please do not hesitate to contact this office. Thank you for the opportunity to review and comment on this project.

Respectfully,

By:

  
John A. Gay, PE  
Director of Public Works

CY/ag

**RECEIVED**  
MAY 29 2019  
IMPERIAL COUNTY  
PLANNING & DEVELOPMENT SERVICES



# 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 Niland County Sanitation District	EMAIL ADDRESS JohnGay@co.imperial.ca.us	
2. MAILING ADDRESS (Street / P O Box, City, State) 155 South 4th Street, El Centro, CA	ZIP CODE 92243	PHONE NUMBER (442) 265-1829
3. APPLICANT'S NAME NCSD	EMAIL ADDRESS JohnGay@co.imperial.ca.us	
4. MAILING ADDRESS (Street / P O Box, City, State) 155 South 4th Street, El Centro, CA	ZIP CODE 92243	PHONE NUMBER (442) 265-1829
4. ENGINEER'S NAME James G. Holt	CA. LICENSE NO. 31773	EMAIL ADDRESS jack@theholtgroup.net
5. MAILING ADDRESS (Street / P O Box, City, State) 1601 N Imperial Avenue, El Centro, CA	ZIP CODE 92443	PHONE NUMBER (760) 337-33883
6. ASSESSOR'S PARCEL NO. <u>021-240-001/006 &amp; 021-240-005</u>	SIZE OF PROPERTY (in acres or square foot) <u>73.36 acres</u>	ZONING (existing) A2G
7. PROPERTY (site) ADDRESS N/A <u>125 Alcott Rd.</u>		
8. GENERAL LOCATION (i.e. city, town, cross street) Alcott Road at Highway 111, Niland CA		
9. LEGAL DESCRIPTION <u>SE 1/4 Sec 8 T11s R14e 160AC</u>		

## PLEASE PROVIDE CLEAR & CONCISE INFORMATION (ATTACH SEPARATE SHEET IF NEEDED)

10. DESCRIBE PROPOSED USE OF PROPERTY (list and describe in detail)	
<u>See Attached</u>	
11. DESCRIBE CURRENT USE OF PROPERTY	<u>Agricultural Land</u>
12. DESCRIBE PROPOSED SEWER SYSTEM	<u>Evaporation Ponds</u>
13. DESCRIBE PROPOSED WATER SYSTEM	<u>N/A</u>
14. DESCRIBE PROPOSED FIRE PROTECTION SYSTEM	<u>N/A</u>
15. IS PROPOSED USE A BUSINESS? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	IF YES, HOW MANY EMPLOYEES WILL BE AT THIS SITE?

I / WE THE LEGAL OWNER (S) OF THE ABOVE PROPERTY CERTIFY THAT THE INFORMATION SHOWN OR STATED HEREIN IS TRUE AND CORRECT.

John Gay Print Name	April 11, 2019 Date
<u>John Gay</u> Signature	
Print Name	Date
Signature	

## REQUIRED SUPPORT DOCUMENTS

A. SITE PLAN	_____
B. FEE	_____
C. OTHER	_____
D. OTHER	_____

APPLICATION RECEIVED BY: <u>DRK</u>	DATE <u>4/15/19</u>	REVIEW / APPROVAL BY OTHER DEPT'S required. <input checked="" type="checkbox"/> P. W. <input checked="" type="checkbox"/> E. H. S. <input checked="" type="checkbox"/> A. P. C. D. <input type="checkbox"/> O. E. S. <input type="checkbox"/> _____ <input type="checkbox"/> _____
APPLICATION DEEMED COMPLETE BY: _____	DATE _____	
APPLICATION REJECTED BY: _____	DATE _____	
TENTATIVE HEARING BY: _____	DATE _____	
FINAL ACTION: <input type="checkbox"/> APPROVED <input type="checkbox"/> DENIED	DATE _____	

**CUP #**  
19-0006

IS# 19-0007

## **Conditional Use Permit Application**

### **NILAND COUNTY SANITATION DISTRICT Wastewater Treatment Plant Improvement Project**

#### **Project Description**

Improvements to the Niland County Sanitation District's (NCS) wastewater treatment system are being proposed to address exceedances discharge contamination from E. coli (bacteria), copper, and thallium. Planned improvements include the construction of three evaporation ponds on an approximate 58-acre parcel of land on the south side of Alcott Road west of Highway 111 adjacent to the existing wastewater treatment plant (WWTP). Land will be acquired from the Imperial Irrigation District through a land swap agreement. The evaporation ponds would add an additional step to the treatment process to eliminate wastewater discharge into the natural environment and eliminate the need for a National Pollutant Discharge Elimination System (NPDES) Permit. Effluent from the existing WWTP will be pumped via a new pump station and deposited into the three large open basins allowing water to evaporate through solar radiation and wind. Each of the three, 10-acre water surface evaporation ponds to accommodate an average annual flow of 150,000 gallons per day with a peak monthly flow of 200,000 gallons per day with sufficient freeboard to store water during the cool wet winter months for evaporation during the summer. Approximately 50 mg/L suspended solids per day will accumulate in the evaporation basins and as water naturally evaporates the solids will compact as they settle to the bottom of the basin. It is projected that approximately five inches of solids per year will accumulate when the basins are operating at full capacity assuming that the solids will compact to a concentration of about 5,000 mg/L. The accumulated solids will be cleaned out and disposed at the land fill once every five years.

**Appendix D – Environmental Assessment (NEPA Document)**



**U.S. Department of Housing and Urban  
Development**

451 Seventh Street, SW  
Washington, DC 20410  
www.hud.gov

espanol.hud.gov

# **Environmental Assessment**

## **Determinations and Compliance Findings for HUD-assisted Projects**

### **24 CFR Part 58**

#### **Project Information**

**Project Name:** Niland County Sanitary District Wastewater Treatment Plant Improvements

**Responsible Entity:** County of Imperial

**Grant Recipient** (if different than Responsible Entity):

**State/Local Identifier:** 20-CDBG-12086

**Preparer:** County of Imperial

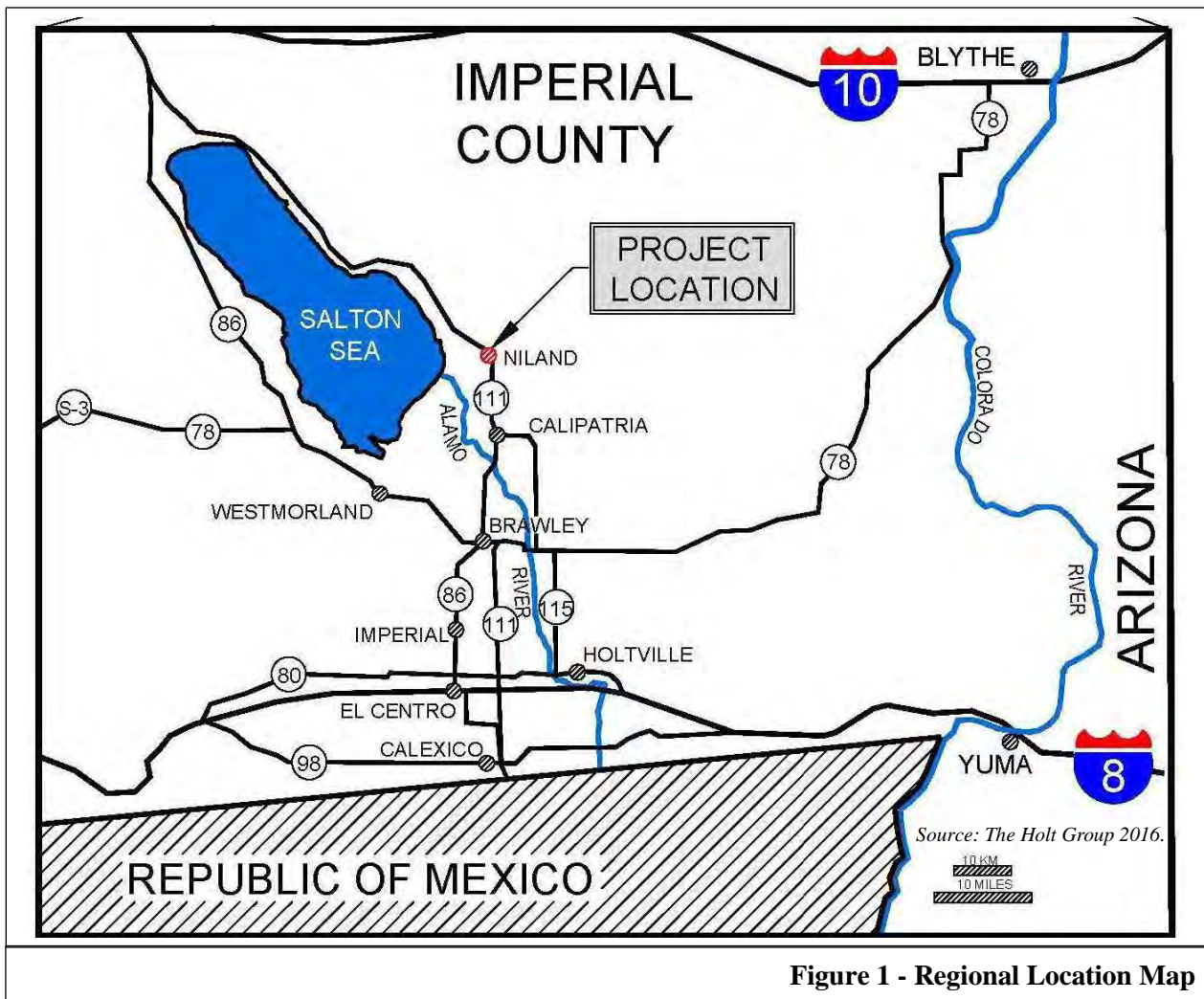
**Certifying Officer Name and Title:** Miguel Figueroa, Imperial County Executive Officer

**Grant Recipient** (if different than Responsible Entity):

**Consultant** (if applicable): Ericsson-Grant, Inc.

**Direct Comments to:** Jenell Guerrero, Administrative Analyst III,  
Imperial County Department of Public Works

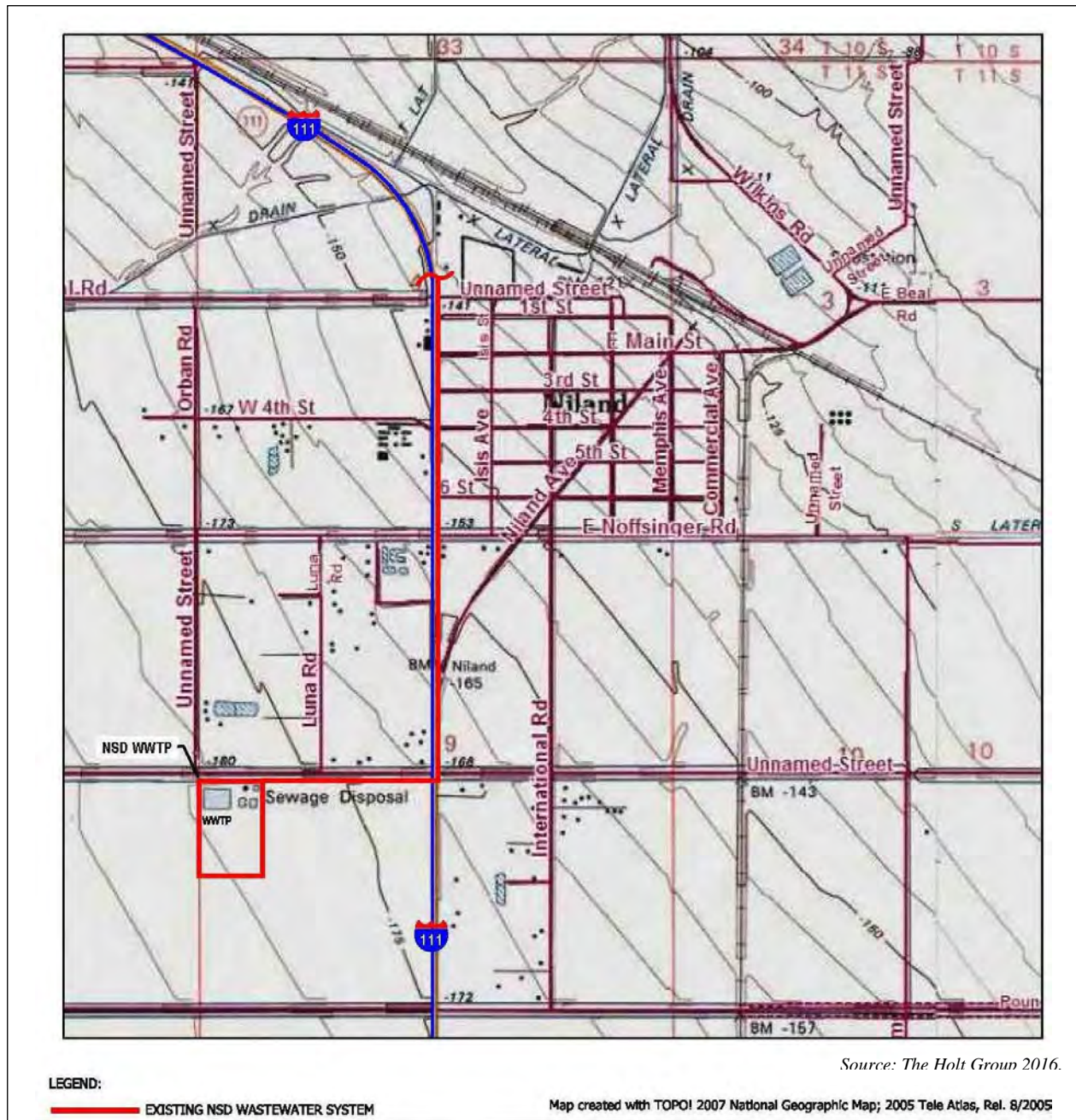
**Project Location:** The Niland County Sanitary District Wastewater Treatment Plant (WWTP) Improvements are located in the Township of Niland, an unincorporated area of Imperial County that has been designated as a Colonia. Niland is located 45 miles north of the United States-Mexico border and is approximately 0.402 square miles. State Route (SR) 111 aligns north-south along the western portion of the community and is the main arterial in Niland (Figure 1). The Salton Sea is located approximately four miles to the west. Niland is bordered by the East Mesa to the east and northeast, agricultural fields and the Salton Sea to the west, and extensive agricultural development of the Imperial Valley to the south.



**Figure 1 - Regional Location Map**



The Niland County Sanitary District owns and operates approximately six miles of sewer collections lines, one lift station, and a WWTP located at 125 West Alcott Road in the Township of Niland, Imperial County (Figure 2).

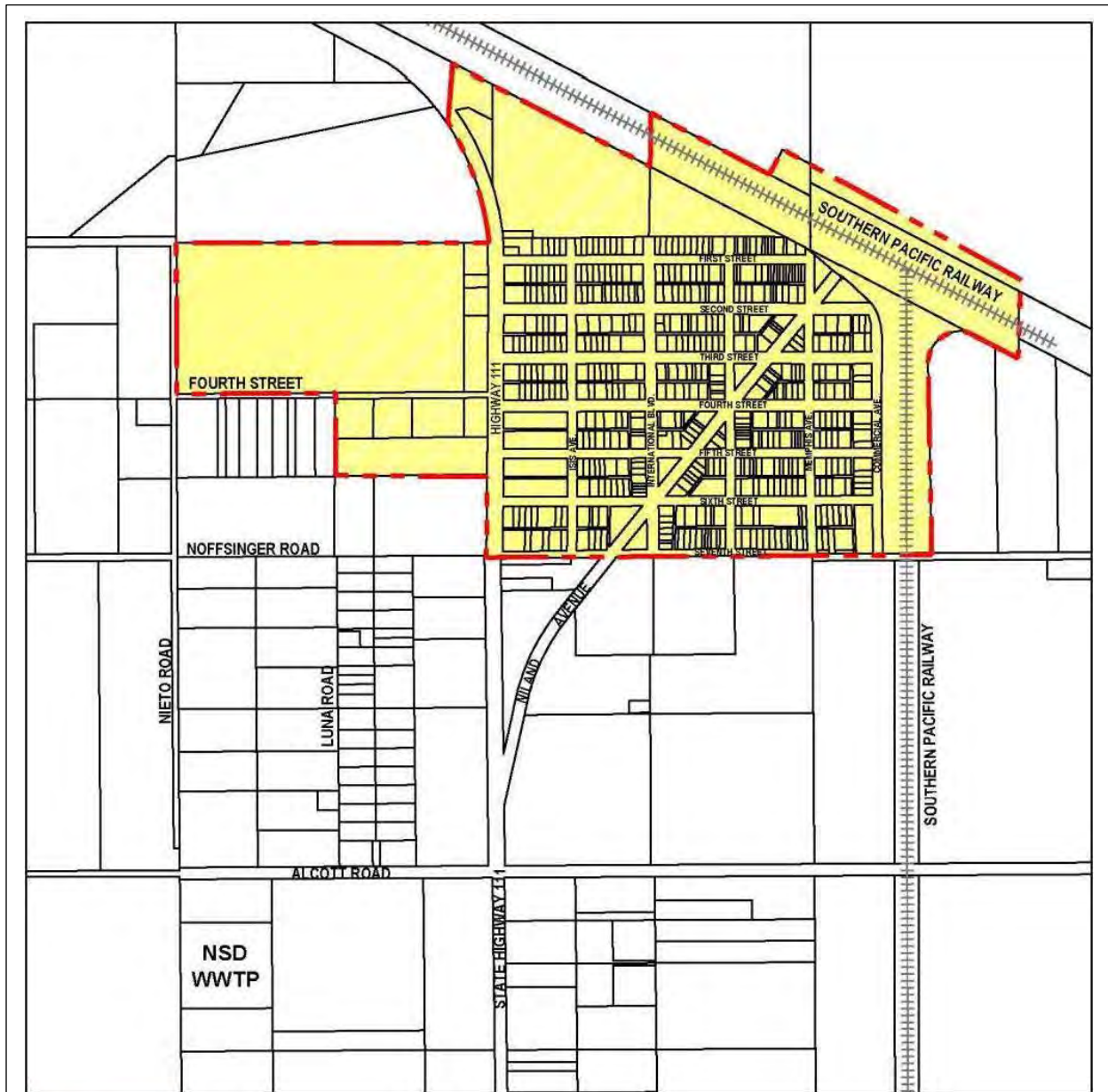


**Figure 2 - Niland County Sanitary District WWTP Location and Existing Sanitary District**



**Description of Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:**

The Niland County Sanitary District wastewater collection system was built in the mid 1940's and provides wastewater collection and treatment services to residents of Niland. The Niland County Sanitary District service area covers approximately 1,290 acres (Figure 3) and has over 700 active sewer collection service connections.



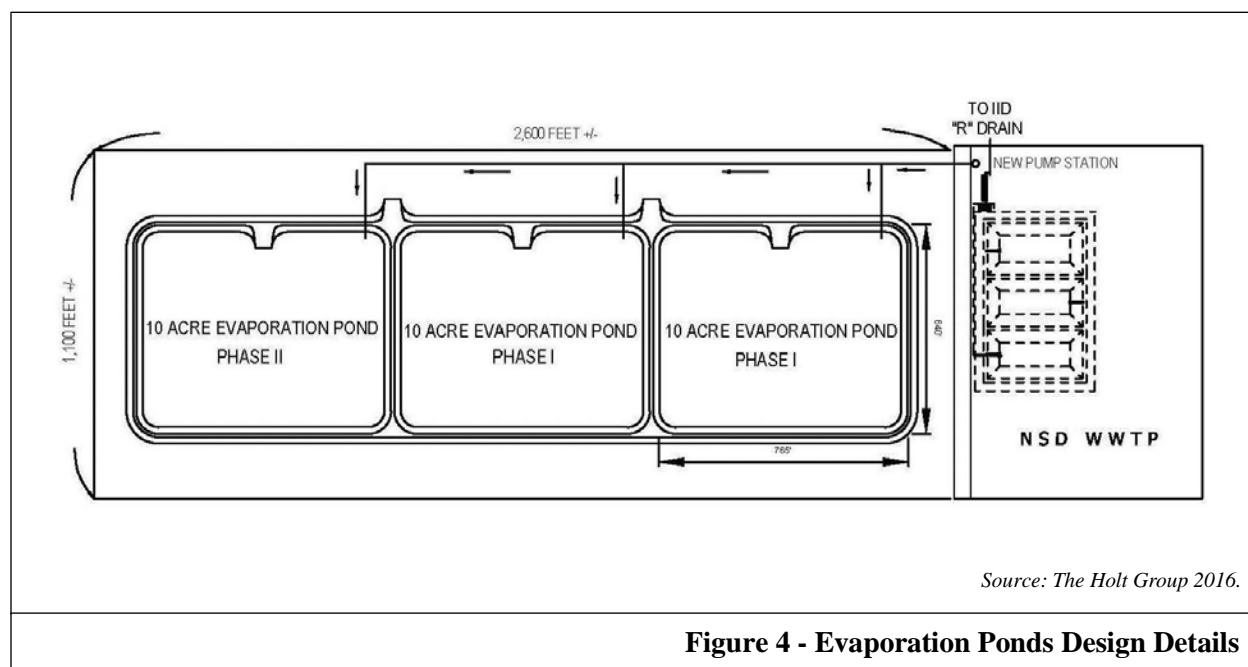
Source: The Holt Group 2016.

**Figure 3 - Niland County Sanitary District Service Area Map**

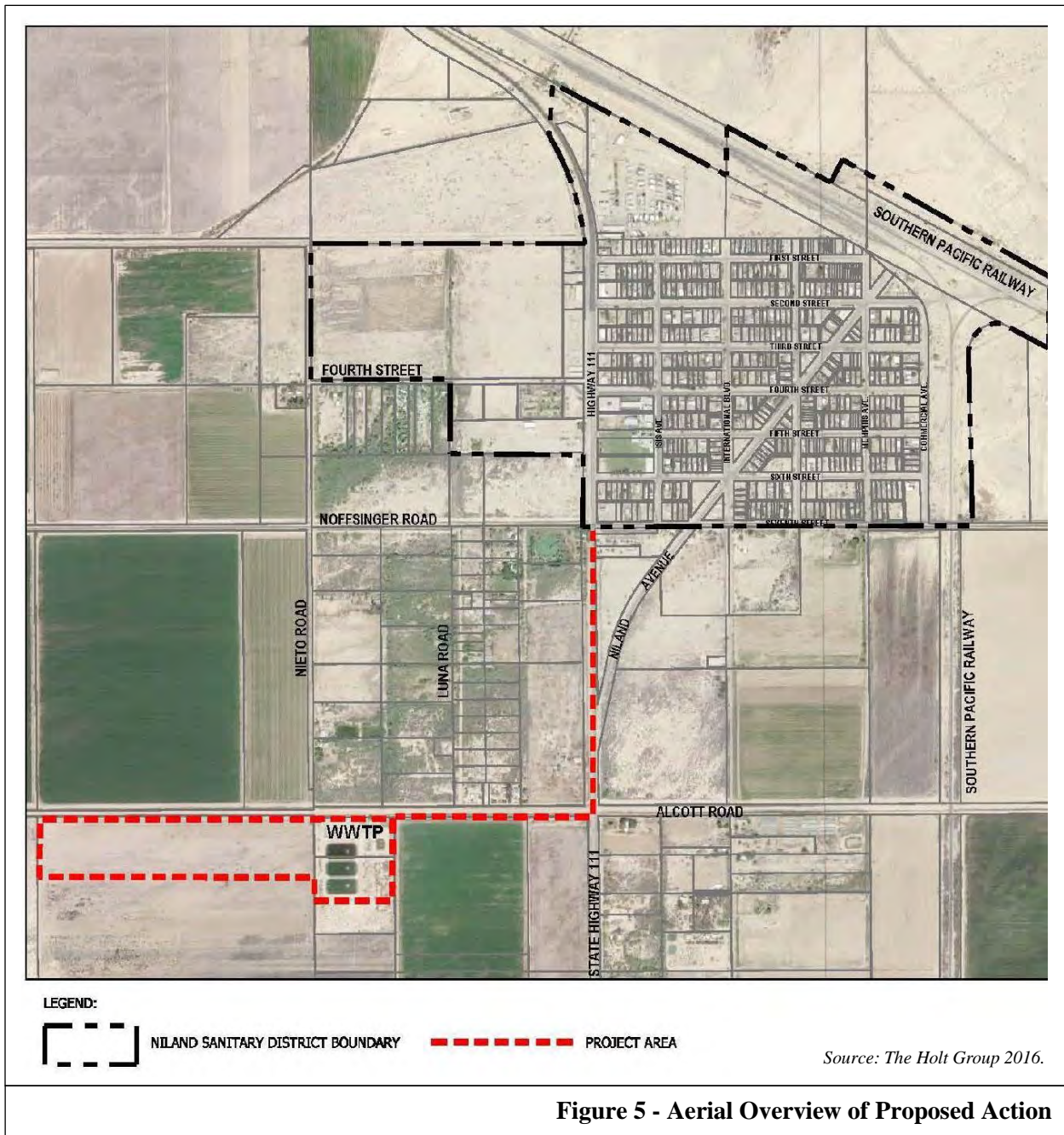
The Niland County Sanitary District's existing wastewater collection system consists of approximately 32,000 lineal feet of vitrified clay pipe and polyvinyl chloride pipe, ranging from 4 inches to 10 inches in diameter. The pipeline collection system gravity flows to the existing lift station at the WWTP. Treated effluent is discharged from the WWTP to an agricultural drain (Drain R) which is owned and operated by the Imperial Irrigation District (IID). The IID drain eventually flows into the Salton Sea.

Currently the Niland WWTP is operating in violation of the National Pollutant Discharge Elimination System Permit due to effluent quality. Specifically, the plant is in violation of Copper, Thallium and *E.Coli* levels. Three Alternatives were considered to address the National Pollutant Discharge Elimination System violation: The Evaporation Ponds Alternative, the Wetlands Alternative and the No Action Alternative. The Evaporation Ponds Alternative was selected as the Preferred Alternative (Proposed Action being analyzed in this Environmental Assessment) because it would eliminate the need for a National Pollutant Discharge Elimination System Permit, result in cost savings, eliminate uncompliant discharge to the IID drain and avoid violations and fines to the Niland County Sanitary District.

The Proposed Action would construct three evaporation ponds (Figure 4) in series on a 58-acre parcel adjacent to the existing WWTP under a new Waste Discharge Requirement (WDR) Permit. In addition, the Proposed Action would replace and rehabilitate the existing substandard sewer collection pipeline between the Niland WWTP and Noffsinger Road to the north. The proposed collection pipeline extends over a distance of 3,675 lineal feet (Figure 5) (The Holt Group 2016, p. 83).



Effluent generated by the Niland WWTP will be discharged to on-site evaporation ponds to eliminate discharge into the IID “R” Drain as is currently occurring under the existing National Pollutant Discharge Elimination System Permit and instead result in zero discharge under a Waste Discharge Requirements (WDR) Permit. Eliminating the discharge of Niland WWTP effluent to the “R” Drain would have very little impact to the overall volume of flow and operation of the drain. The Proposed Action would result in improved sewer collection services and an effective wastewater treatment system with discharge maintained on-site within evaporation ponds rather discharged to IID irrigating system.



The overall objective of the Proposed Action is to obtain a new Water Discharge Permit from the Regional Water Quality Control Board. The proposed improvements will bring the Niland County Sanitary District into compliance with the Regional Water Quality Control Board permit requirements and provide Niland residents with reliable wastewater collection and treatment services.

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**Statement of Purpose and Need for the Proposal** [40 CFR 1508.9(b)]:

Currently, the treated discharge from the Niland County Sanitary District WWTP tests high in copper (a metal) which has resulted in a violation of National Pollutant Discharge Elimination System permit requirements. The WWTP has also been in violation for thallium (a metal found in ores) and *E. coli* (a bacteria) violations. Each of these violations is discussed in greater detail below. Note: The information in this section is derived from the Niland County Sanitary District Wastewater Treatment Plant Improvements Environmental Assessment prepared by the Holt Group (2016). The Environmental Assessment examined the Proposed Action in detail.

**Copper.** The current National Pollutant Discharge Elimination System Permit for the Niland County Sanitary District has an average monthly effluent limitation of 19 µg/L with a maximum daily limitation of 52 µg/L. The Niland County Sanitary District has had Copper exceedances since November 2005. Copper is non-detectable in the IID water supply and could be introduced to the drinking water from two main sources: erosion of copper pipes and use of Copper Sulfate to control algae growth in surface water reservoirs. The Golden State Water Company sampled 10 homes in Niland in 2013 as part of their triennial Lead and Copper Rule Testing. Seven of the homes had Copper concentrations less than 18 µg/L; two had concentrations of 20 µg/L; and one had a concentration of 160 µg/L. None of the test results approached the Drinking Water Alert Level of 1,300 µg/L (130 mg/L). Copper testing in 2014 and 2015 showed that most of the months there are measurable concentrations. This led to the conclusion that Copper exceedances are likely to be a chronic problem because a point source has not been identified (The Holt Group 2016, p. 7).

**Thallium.** Thallium is very toxic metal. As such, it has stringent limits. The Environmental Protection Agency (Environmental Protection Agency) has set the MCL (maximum contaminant level) for drinking water at 2 µg/L with a MCLG (maximum contaminant level goal) of 0.5 µg/L. The Regional Water Quality Control Board (with assistance from the engineering firm Tetra Tech) carried out a Pretreatment Program Needs Assessment. This Assessment was unable to identify a source for the Thallium contamination. The Regional Water Quality Control Board conjectures that the poor condition of the main sanitary sewer collection pipeline extending along Alcott Road and State Route 111 up to Noffsinger Road may allow water infiltration which contributes to the Thallium levels.

***E. Coli.*** Historically, the Niland County Sanitary District has had several *E. Coli* test exceedances. The WWTP uses 12.5% sodium hypochlorite (liquid bleach) in its treatment process. The chlorine is dosed using a metering pump and disinfection occurs in a chlorine contact basin. The original chlorine storage tank developed a leak and is out of use. Chlorine is currently stored in a tank which is opaque to protect from exposure to ultraviolet light. However, the tank is not protected by a shade structure. High temperatures can lead to decomposition of sodium hypochlorite stability. The decomposition rate of bleach is increased by a factor of 3.5 with every 10°C increase in storage temperature. Adding a shade shelter will allow the operators to use less bleach during the summer months.

In response to the Niland County Sanitary District's violations of Copper, Thallium and *E. Coli*, the Colorado River Basin Regional Water Quality Board (Regional Water Quality Control Board) issued a Cease and Desist Order (CDO R7-2012-0024) to the Niland County Sanitary District. The Cease and Desist included a timeline to construct alternative wastewater treatment facilities.

The Proposed Action would provide the residents of Niland with reliable wastewater collection and treatment services. By ceasing the discharge to the "R" Drain, the Niland County Sanitary District will no longer discharge treated effluent high in copper, and sometimes thallium and bacteria, in violation of the

National Pollutant Discharge Elimination System permit. The Niland County Sanitary District WWTP would



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come into compliance with the requirements of Environmental Protection Agency and the Regional Water Quality Control Board. In addition, the Proposed Action would also be able to accommodate limited future development within Niland County Sanitary District's approved service area as long as it is within the permitted capacity of the WWTP.

**Existing Conditions and Trends** [24 CFR 58.40(a)]:

The Proposed Action is located in the Township of Niland, an unincorporated area of Imperial County that has been designated as a Colonia (an unincorporated area near the Mexican border lacking public infrastructure and services). SR 111 aligns north-south along the western portion of the community and is the main arterial in Niland. The Salton Sea is located approximately four miles to the west. The town is bordered by the East Mesa to the east and northeast, agricultural fields and the Salton Sea to the west, and extensive agricultural development of the Imperial Valley to the south.

Niland's population was estimated at 1,145 under the 2013 American Community Survey (ACS), US Census Bureau. However, the 2015 population serviced by the Niland County Sanitary District was more accurately estimated at 1,362 persons (based on 510 residential sewer connections multiplied by 2.67 persons per household). The population is temporarily estimated to be 500 based on damage by a fire in June 2020 which displaced a significant portion of Niland's residents.

The Niland County Sanitary District provides wastewater collection and treatment services to residents of Niland. The Niland County Sanitary District owns and operates approximately six miles of sewer collections lines, one lift station, and a wastewater treatment plant located at 125 West Alcott Road. The Niland WWTP discharges treated effluent to an agricultural drain (the IID "R" Drain) which eventually flows into the Salton Sea.

In addition to wastewater service and treatment from the Niland County Sanitary District, Niland has utilities including water from the Golden State Water Company; overhead electrical service from IID; and telephone service.

The Niland WWTP has an average daily peak design capacity of 0.5 MGD. Currently, flow to the WWTP is estimated at 63,300 gallons/day or 13% of the National Pollutant Discharge Elimination System Permit approved capacity.

The WWTP includes three aeration ponds in series; one chemical building for sodium hypochlorite and metabisulfite storage; and one contact chamber used for disinfection and de-chlorination. Each pond is 350 feet long, 150 feet wide, and 11 feet deep. The ponds are aerated by splash aerators and are lined with high density polyethylene (HDPE) liners. Effluent from the last pond flows to a chemical feed system composed of a chlorine contact chamber, where it is chlorinated at a normal contact time of one hour by the addition of sodium hypochlorite. The disinfected effluent is then dechlorinated by mixing it with sodium metabisulfite in a flash mixer. The treated effluent is then discharged into the IID "R" drain, which flows four miles to the Salton Sea.

The Niland WWTP site is zoned for Agriculture and is surrounded by lands designated for agricultural use or low-density residential. Land uses to the north and southwest of the WWTP and project area consist of active agricultural lands and some isolated rural residential. Land uses immediately west of the WWTP are inactive agricultural lands. Improvements to the existing pipeline would involve land used for public right-of-way, such as the areas along Alcott Road or Highway 111 (The Holt Group 2016, p. 60).

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**Funding Information**

<b>Grant Number</b>	<b>HUD Program</b>	<b>Funding Amount</b>
20-CDBG-12086	CDBG	\$3,000,000

**Estimated Total HUD Funded Amount:**

\$3,000,000

**Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:**

\$8,626,998 HUD



**Photo 1:** Entry to existing Niland County Wastewater Treatment Plant.



**Photo 2:** View south from Operations Building towards existing evaporation ponds.



**Photo 3:** View east from entry bridge to existing WWTP.



**Photo 4:** Corner of State Route 111 and Alcott Road.





**Photo 5:** View north along State Route 111 from the intersection of Alcott Road and State Route 111.



**Photo 6:** State Route 111 at the Niland Avenue turn. The proposed pipeline would continue along State Route 111 past this intersection.

**Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities**

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6</b>		
<b>Airport Hazards</b> 24 CFR Part 51 Subpart D	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Proposed Action is approximately 8 miles north of the Calipatria Municipal Airport and is not within any airport compatibility zones. The Proposed Action would not be located within a Clear Zone or Accident Potential Zone at the Calipatria Municipal Airport (Documentation: NEPA Assist Tool - Attachment “B”).
<b>Coastal Barrier Resources</b> Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Proposed Action is in Niland approximately 110 miles east of the California Coast; not along the Atlantic or Gulf coast or along the shore areas of the Great Lakes of the United States. The Proposed Action would not result in an adverse effect to Coastal Barrier Resources. (Documentation: USFW Coastal Barrier Resources - Attachment “C”).
<b>Flood Insurance</b> Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The Proposed Action is located within Zone X floodplain area per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 06025C0725C and dated September 26, 2008. Zone X as defined by FEMA is, “Areas determined to be outside the 0.2% annual chance floodplain (See Attachment “A”, EDR Report, p. 63; and Attachment “D” FEMA FIRM). The Proposed Action is not in a flood disaster area and no flood insurance would be necessary.

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 &amp; 58.5</b>		
<p><b>Clean Air</b></p> <p>Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Imperial County has been designated as a non-attainment area for both ozone and PM<sub>10</sub> (fugitive dust, 10 micrometers or less) standards. The total footprint of evaporation ponds would be approximately 58 acres adjacent to the Niland County Sanitary District WWTP. The collection pipeline extends over a 3,675 linear feet distance along Alcott Road and Highway 111 up to Noffsinger Road. Construction of the Proposed Action would result in a temporary increase in PM<sub>10</sub> in association with clearing, grading, and excavation to install the evaporation ponds and improve the existing system. The Imperial County Air Pollution Control District (ICAPCD) has construction emissions thresholds of 150 pounds per day (lbs/day) for PM<sub>10</sub> and PM<sub>2.5</sub>; 75 lbs/day for Nitrogen Oxide (NO<sub>x</sub>); 100 lbs/day for Carbon Monoxide (CO); and 500 lbs/day for Reactive Organic Gases (ROG) (ICAPCD 2007, p. 19). Based on the size of the area to be disturbed (58 acres and 3,675 linear feet) and the duration of the project (approximately 9 months) emissions of ozone precursors or other criteria pollutants would occur during construction. Operation of the proposed evaporation ponds and improvements to the WWTP system would not result in the generation of significant quantities of ozone precursors, or PM<sub>10</sub> and no additional employees would be needed to operate the facility. The temporary level of emissions increase during construction can be reduced with implementation of best management practices as required by the ICAPCD as well as all conditions imposed by the County of Imperial. Once completed, operational traffic is not anticipated to substantially increase Documentation: ICAPCD CEQA Air Quality Handbook 2007.</p>

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>Coastal Zone Management</b> Coastal Zone Management Act, sections 307(c) & (d)	Yes No  <input type="checkbox"/> <input checked="" type="checkbox"/>	The Proposed Action is in Niland approximately 110 miles east of the California Coast. The Proposed Action would have no impact on Coastal Zone Management (Documentation: California Department Fish and Wildlife BIOS Attachment “E”).
<b>Contamination and Toxic Substances</b> 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes No  <input type="checkbox"/> <input checked="" type="checkbox"/>	The Proposed Action is in Niland, an unincorporated area of Imperial County that has been designated as a Colonia. The 58-acre parcel for the proposed evaporation ponds is adjacent to, and east of, the existing Niland County Sanitary District WWTP. The parcel is vacant but previously disturbed. A search of a one-mile radius from the parcel using the Department of Toxic Substances (DTSC’s) Envirostor website revealed one Leaking Underground Storage Tank (LUST) clean-up site (Exxon Station at 8004 Highway 111, Niland), and one military clean-up site (Chocolate Mountain NWR – Chocolate Mountain Naval Weapons Station). The clean-up at both sites was completed and these cases have been closed. Neither of the two clean-up sites are within footprint of the Proposed Action. No toxic substances or hazards were identified in the Envirostor database for the site of the Proposed Action. A one-mile radius search of the California State Water Resources Control Board’s GeoTracker website revealed no Waste Discharge Requirement Sites, DTSC Hazardous Waste Sites, Land Disposal Sites, etc. within one mile of the site of the Proposed Action including the site itself. No toxic facilities are on or near the site (See Attachment “F” Envirostor and Geotracker). The Project is not in an area affected by contamination and toxic substances.

<p><b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6</p>	<p>Are formal compliance steps or mitigation required?</p>	<p>Compliance determinations</p>
<p><b>Endangered Species</b></p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Based on a search of the California Endangered Species Database, several California Endangered Species were identified within a two-mile radius of the proposed evaporation ponds. The Sonoran Desert toad, burrowing owl, razorback sucker, yellow warbler and merlin (Refer to Attachment “A”, EDR NEPA Check, p. 3 “Natural Areas Map” p. 3, and Natural Areas Map Findings, pp. 55-63). No endangered species were identified on the 58- acre parcel or within the alignment of the proposed repair/replacement of the pipeline. A search of the Information for Planning and Consultation (IPaC) was also conducted. The IPaCs earth identified four endangered species with potential to occur in the area: Western Snowy Plover, Yuma Ridgway Rail, Desert Pupfish and Monarch Butterfly. Several migratory birds were also identified (see Attachment “G”). The parcel and surrounding area are vacant but have been previously disturbed. Likewise, the pipeline alignment has been previously disturbed. Mitigation measures BIO-1 requires a pre- construction be conducted 7-days prior to starting construction. The Proposed Action will also adhere to all conditions imposed by Imperial County as well as mitigation measures identified in the prior EA. With implementation of the conditions and Mitigation Measure BIO-1, the Proposed Action is not anticipated to have a negative effect on endangered species based on existing conditions.</p>

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p><b>Explosive and Flammable Hazards</b></p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Proposed Action is limited to improvements to the wastewater treatment plant and does not include constructing housing or increasing residential density.</p> <p>The 58-acre parcel and surrounding area was not found on a list of hazardous materials sites. The closest site (a closed LUST clean-up site) identified on Geotracker was within 1 mile of the project parcel. No explosive or flammable hazards are within or proximate to the parcel (See Attachment “F” Envirostor and Geotracker).</p> <p>The Proposed Action would use sodium hypochlorite and sodium metabisulfite for the wastewater treatment process. Neither sodium hypochlorite or sodium metabisulfite is flammable or explosive but both are considered hazardous due to their corrosive and or irritant qualities. Both would be stored on site in compliance with all applicable federal, state and local requirements.</p>

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p><b>Farmlands Protection</b></p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Based on the California Department of Natural Resources on-line map, the Proposed Action is located on land that is designated as “Other Land” with a portion of the pipeline extending through land that is designated as Farmland of Local Importance (See Attachment “H” “California Important Farmland 1984-2020” Map). The land for the proposed improvements is not currently under agricultural production and has not been so for a number of years. Installation of the pipeline through the area identified as Farmland of Local Importance would not convert the farmland as the pipeline would be buried. Therefore, the Proposed Action would not result in any adverse effect regarding Farmland Protection Policy Act.</p>
<p><b>Floodplain Management</b></p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Proposed Action is within Zone X per FEMA FIRM Map No. 06025C0725C, (Refer Attachment “A”, EDR NEPA Check, p. 69 “Flood Plain Map and Flood Plain Map Findings,” and Attachment “D” FEMA FIRM). Zone X is defined as an area of minimal flood hazard (i.e., a 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile). The Proposed Action would not have an adverse effect on Floodplain Management.</p>

<p><b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6</p>	<p>Are formal compliance steps or mitigation required?</p>	<p>Compliance determinations</p>
<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The Proposed Action is not listed in the CA Historic Sites Database or the National Register of Historical Places Database. (Refer to Attachment “A”, EDR National Environmental Protection Agency Check, p. 2 and p. 66-68). All work will be done within previously disturbed areas within the 58-acre parcel and public right-of-way, such as the areas along Alcott Road or SR 111. Construction workers, vehicles and staged materials will be monitored to ensure that project boundaries are maintained and that no areas outside of the parcel are disturbed. The likelihood of encountering cultural resources within the 58-acre parcel and pipeline alignment is low. However, as with any activity involving earthmoving, specifically excavation for the evaporation ponds and trenching for installation and repairs to pipeline, the potential exists to uncover unknown subsurface cultural resources or human remains. The Proposed Action will adhere to all conditions imposed by Imperial County. The Proposed Action is not anticipated to have an adverse effect on Historic Preservation.</p>



<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p><b>Noise Abatement and Control</b></p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>An increase in noise levels would occur in association with operation of heavy equipment (front-end loaders, excavators, trucks, rollers, graders, air compressors, generators, backhoes, etc.) during construction. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to noise levels in excess of 100 dBA when measured at 50 feet. However, these noise levels would diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. The anticipated noise levels from the aforementioned equipment would not exceed the American National Standard Institute (ANSI) guideline for adjacent residential properties (The Holt Group 2016, p. 82-83). These noise levels, however, are temporary (9 months for the entire project with intermittent increases along the pipeline alignment) and would no longer exist once construction is completed. The Proposed Action would be required to comply with the Imperial County Noise Ordinance. The Proposed Action will also adhere to all conditions imposed by Imperial County. In addition, because the Proposed Action does involve new construction for residential use or rehabilitation of existing residential property or a research demonstration project it is in compliance with 24 CFR Part 52 Subpart B. Documentation: Imperial County General Plan Noise Element, 1993.</p>
<p><b>Sole Source Aquifers</b></p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>Environmental Protection Agency Region 9 (Pacific Southwest) includes California, Arizona, Nevada and the Hawaiian Islands. No sole source aquifers are located beneath or in proximity to the Proposed Action (Refer to Attachment "I" Map of Region 9 Sole Source Aquifers in California).</p>

<b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p><b>Wetlands Protection</b></p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>A search of the National Wetland Inventory Data identified 183 wetlands within a two-mile radius of the 58-acre parcel, including eight within 1/8-mile of the site; four between 1/8- and 1/4-mile; fifteen between 1/4- and 1/2-mile; 33 between 1/2- and 1-mile; and 138 between 1 and 2 miles from the site. A one-mile search radius from the 58-acre parcel did not identify any State Wetlands Data (Refer to EDR Report Attachment “A” p. 2 and pp. 71 - 96). There are no wetlands identified on or adjacent to the 58-acre parcel. The Proposed Action would have no effect on wetland protection. A pre-construction environmental briefing shall take place to educate the construction crews regarding proximity to off-site wetlands and explain that no staging or access to these areas is allowed.</p>
<p><b>Wild and Scenic Rivers</b></p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>California has approximately 189,454 miles of rivers. Of this total, approximately 1,999.6 miles are designated as “Wild and Scenic.” None of these rivers extend through the County of Imperial. (Refer to Attachment “J”, California Wild and Scenic River System and Management Agencies). The Proposed Action would have no effect on Wild and Scenic River System and Management Agencies.</p>

<p><b>Compliance Factors:</b> Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6</p>	<p>Are formal compliance steps or mitigation required?</p>	<p>Compliance determinations</p>
<p><b>ENVIRONMENTAL JUSTICE</b></p>		
<p><b>Environmental Justice</b> Executive Order 12898</p>	<p>Yes No <input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Proposed Action is needed to address existing discharge violations and bring the Niland County Sanitary District WWTP into compliance with the requirements of its National Pollutant Discharge Elimination System permit. Specifically, the WWTP has experienced violations with regard to Copper, Thallium and <i>E. Coli</i> levels. The construction of the evaporation ponds and improvements and repairs to the pipeline would not result in a disproportionately high or adverse human health or environmental impact on a minority population, low-income population or Indian tribe, because there is no disproportionate impact from one or more environmental hazards and no health risks are present in association with the Proposed Action. On the contrary, the proposed Action would eliminate discharge violations and allow the Niland County Sanitary District WWTP to obtain a Water Discharge Requirement permit which would benefit the residents of Niland.</p>

**Environmental Assessment Factors** [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

**Impact Codes:** Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>LAND DEVELOPMENT</b>		
<b>Conformance with Plans/ Compatible Land Use and Zoning/Scale and Urban Design</b>	2	<p>The Proposed Action would result in construction of evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The use of ponds to evaporate all effluent generated by the Niland County Sanitary District WWTP would eliminate effluent discharge into the IID “R” Drain under the current National Pollutant Discharge Elimination System Permit and result in zero discharge under a Waste Discharge Requirement Permit. Additionally, the repair/replacement of the deficient sections of the sanitary sewer collection pipeline may reduce the amount of infiltration, a potential contributor of some of the identified pollutants (e.g., Copper). The Imperial County Land Use Plan (Updated 2007) designates Niland as an Urban Area. The 58-acres site is designated Agriculture and is zoned A-1 (Limited Agriculture within Urban Boundaries Only). Potable water treatment and Wastewater Treatment Plants are allowable uses within this zone with a Conditional Use Permit [Note: the CUP was approved at the Imperial County Planning Commission on July 24, 2019]. The evaporation ponds are proposed adjacent to, and east of, the existing WWTP expanding the existing use. Therefore, the proposed Action would have no impact with regard to conformance with plans, compatibility with land use and zoning/scale and urban design.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<p><b>Soil Suitability/Slope/Erosion/ Drainage/Storm Water Runoff</b></p>	<p>2</p>	<p>Niland is flat and is comprised primarily of residential development, a portion of which was burned by a fire in June 2020. According to the 1981 USDA NRCS soil survey for Imperial County, general soil groups in and around Niland are Imperial, Imperial-Holtville-Glenbar, and Niland-Imperial. These soils are generally deep, highly calcareous, and contain gypsum and soluble salts. They consist of silty clays, silty clay loams, and clay loams, and are moderately well-drained (The Holt Group 2016, p. 47). Because the area is generally flat, soil erosion is not a major concern. However, structural hazards are a concern because minor earthquakes are a common occurrence in the vicinity of Niland and the area has a moderately high earthquake risk. The Proposed Action does not involve construction of any structures (The Holt Group 2016, p. 48). The Proposed Action will also adhere to all conditions imposed by Imperial County.</p> <p>Currently, the Colonia has no storm drains. The proposed Action would not change drainage or stormwater runoff patterns or volume. The proposed Action includes construction of three evaporation ponds to facilitate removing solids to be constructed east of the existing Niland County Sanitary District WWTP and eliminate the need for discharge flows. Each basin would have a ramp to allow equipment to enter the basin and remove the dried solids that would compact as they settle to the bottom of the basin. Therefore, the Proposed Action would have no impact with regard to soil suitability/slope/erosion/drainage and storm water runoff.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<p><b>Hazards and Nuisances including Site Safety and Noise</b></p>	<p>3</p>	<p>The Proposed Action will result in the development of three evaporation ponds on a 58-acre parcel adjacent to the existing Niland County Sanitary District WWTP and the repair/replacement of the deficient sections of the sanitary sewer collection pipeline. Some hazardous materials would be used during construction. In addition, the Niland County Sanitary District WWTP uses a number of chemicals consisting of sodium hypochlorite and sodium bisulfite. Numerous local, state, and federal laws regulate the storage, handling, disposal, and transportation of hazardous materials and waste that would be applicable at the WWTP. With implementation of the Proposed Action, the WWTP would cease the use of sodium bisulfite, but would continue to handle the aforementioned chemicals on a routine basis. Additionally, safety repairs to the crossing bridge and the Ground Water Pump Station wet well's entrance cover would be completed as part of the Proposed Action. The Proposed Action will also adhere to all conditions imposed by Imperial County.</p> <p>The sanitary sewer pipeline conveys untreated wastewater from Niland to the Niland County Sanitary District WWTP. Due to nature of all construction activities, the potential exists for accidents to occur during construction activities. The Proposed Action would involve two bypasses to the laterals and ditches; thus, the potential exists for accidental spills of untreated wastewater during the construction phase. The Proposed Action will also adhere to all conditions imposed by Imperial County.</p> <p>The primary seismic hazard in the area is the potential for strong groundshaking during earthquakes along the San Andreas, Imperial, Elmore Ranch, Brawley Seismic Zone and Superstition Hills faults. Although the 58-acre parcel and alignment of the pipeline does not lie within a State of California Alquist-Priolo Earthquake Fault Zone, the proposed facilities would need to be constructed in accordance with the California Uniform Building Code which contains specifications to minimize adverse effects due to ground shaking from earthquakes and liquefaction (The Holt Group 2016, p. 95). The Proposed Action will also adhere to all conditions imposed by Imperial County.</p> <p>Operation of the Niland County Sanitary District WWTP involves the use of some hazardous materials used for the treatment process as well as the waste sludge that would accumulate in the evaporation ponds. Improper use, storage, transport, or disposal of these materials may result in harm to humans, degradation of surface or ground water, air pollution,</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
		<p>these laws are to protect public health and the environment (The Holt Group 2016, p. 45). The evaporation ponds would need waste sludge (bio-solids) removed and properly disposed of every 5 years. Bio-solids would be considered hazardous waste. The Proposed Action will adhere to all conditions imposed by Imperial County.</p> <p>Some short-term noise would be generated during construction. The with the nearest resident to the 58-acre parcel is 686 linear feet away. The collection pipeline extends over a 3,675 linear feet distance with the nearest resident located within 46 linear feet of construction along Alcott Road and SR 111 up to Noffsinger Road (The Holt Group 2016, p. 83). Increased construction noise would be temporary and intermittent. The Proposed Action will adhere to all conditions imposed by Imperial County.</p>
<b>Energy Consumption</b>	1	<p>The IID Energy Division currently provides electricity to the Niland County Sanitary District WWTP. Energy consumption would occur during construction in association with fuel for vehicles and heavy equipment. Once completed, energy would be needed to pump effluent to the evaporation ponds. However, no additional pumping facilities beyond what is currently used would be needed (The Holt Group 2016, p. 78). The Proposed Action would decrease the permitted capacity of the WWTP from 0.50 MGD to 0.15 MGD. The Niland County Sanitary District WWTP currently uses an estimated 193,290-kilowatt hours (KwH) of energy. With implementation of the Proposed Action, energy consumption would decline to 171,810 KwH (The Holt Group 2016, p. 117). Electricity from solar energy facilities would be utilized at the Niland County Sanitary District WWTP. Thus, negligible impacts to energy are anticipated. Overall, energy consumption is not anticipated to be substantial or wasteful as a result of implementing the Proposed Action.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>SOCIOECONOMIC</b>		
<b>Employment and Income Patterns</b>	1	The Proposed Action would result in temporary benefits to socioeconomics by creating some short-term construction jobs for approximately 9 months. No long-term employment would be generated. The minimal number and temporary nature of the construction employment would not create a substantial increase in population in Imperial County. Therefore, on an overall basis, the Proposed Action would have no effect on employment and income patterns.
<b>Demographic Character Changes, Displacement</b>	1	The Proposed Action is the construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline for the Niland County Sanitary District wastewater system. The Proposed Action would not result in any changes to the demographic character of Niland.
<b>COMMUNITY FACILITIES AND SERVICES</b>		
<b>Educational and Cultural Facilities</b>	2	The Proposed Action is the construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline for the Niland County Sanitary District wastewater system. The Proposed Action would not result in any changes to the educational and cultural facilities of Niland.
<b>Commercial Facilities</b>	2	The Proposed Action would result in construction of evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline for the Niland County Sanitary District wastewater system. The Proposed Action would not induce population growth creating the need for more commercial facilities. Therefore, the Proposed Action would have no effect on commercial facilities.
<b>Health Care and Social Services</b>	1	The Proposed Action is the construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline for the Niland County Sanitary District wastewater system. The Proposed Action would not affect health care and social services in Imperial County. However, it would provide a minor beneficial impact by bringing the Niland County Sanitary District WWTP into compliance with its National Pollutant Discharge Elimination System discharge permit.



<b>Environmental Assessment Factor</b>	<b>Impact Code</b>	<b>Impact Evaluation</b>
<b>Solid Waste Disposal / Recycling</b>	3	<p>The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The evaporation ponds would need waste sludge (bio-solids) removed once every five (5) years. Disposal of bio-solids would be determined in a Bio-Solids Management Plan developed consistent with local, state, and federal regulations as part of the final WWTP improvements design. The replacement/rehabilitation of the deteriorating sanitary sewer collection pipeline has the potential for a waste hazard/accident during construction as the pipeline conveys untreated wastewater to the Niland County Sanitary District WWTP. The Proposed Action involves two bypasses to laterals and ditches, thus, the potential exists for accidental spills of untreated wastewater during the construction phase. Additionally, other hazardous waste could potentially be created, disturbed, moved, or used as part of the construction of the Proposed Action. Thus all hazardous waste will need be treated or disposed of with the appropriate permit and in accordance with the Resource Conservation and Recovery Act 42 USC 6901- Treatment, Storage, or Disposal of Hazardous Wastes (The Holt Group 2016, p. 112). The Proposed Action will adhere to all conditions imposed by Imperial County. Trash and wastepaper generated by staff at the facility would be disposed of at a local landfill and would not change with implementation of the Proposed Action.</p>
<b>Waste Water / Sanitary Sewers</b>	1	<p>The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The Proposed Action would result in improved adequacy of sewer collection services and effective wastewater treatment system with a no-point discharge. The Proposed Action would result in improved adequacy of sewer collection services and effective waste water treatment system with a no-point discharge. Any potential impacts that may result from the implementation the Proposed Action would be temporary and mitigatable.</p>

<b>Environmental Assessment Factor</b>	<b>Impact Code</b>	<b>Impact Evaluation</b>
<b>Water Supply</b>	2	<p>The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The Proposed Action addresses deficiencies in the Niland County Sanitary District WWTP that are resulting in a violation of the Plant's National Pollutant Discharge Elimination System Permit due to effluent quality. The current National Pollutant Discharge Elimination System Permit for the Niland County Sanitary District has an average monthly effluent limitation of 19 µg/L with a maximum daily limitation of 52 µg/L. Since November 2005 the Niland County Sanitary District has had Copper exceedances. Copper is non-detect in the IID water supply and could infiltrate drinking water from erosion of copper pipes and use of Copper Sulfate to control algae growth in surface water reservoirs. Golden State Water Company sampled homes in Calipatria and Niland in 2013 as part of their triennial Lead and Copper Rule Testing. None of the test results approached the Drinking Water Alert Level of 1,300 µg/L. (130 mg/L). A review of the last two years of Copper testing shows that most of the months there are measurable concentrations of Copper leading to the conclusion that Copper exceedances are likely to be a chronic problem since a point source has not been able to be identified. The Regional Water Quality Control Board suspects the poor condition of the main sanitary sewer collection pipeline that extends along Alcott Road and SR 111 up to Noffsinger Road may be a contributing factor as a result of infiltration (The Holt Group 2016, p. 12). Implementation of the Proposed Action would repair/replace deficient sections of the sanitary sewer collection pipeline. This may reduce the amount of infiltration and potential contributor of some of the identified pollutants thereby resulting in a minor beneficial impact on water quality. Based on the provision of water infrastructure and adequate groundwater, no impacts to water supply would occur.</p>
<b>Public Safety - Police, Fire and Emergency Medical</b>	2	<p>The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. Police protection is provided by the Imperial County Sheriff's Department. Fire protection and emergency medical services are provided by the Imperial County Fire Department. The Proposed Action would not increase the demand on the police, fire and emergency medical services. No impact would occur to public safety.</p>

<b>Environmental Assessment Factor</b>	<b>Impact Code</b>	<b>Impact Evaluation</b>
<b>Parks, Open Space and Recreation</b>	2	The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The Proposed Action would not require construction of new, or expansion of existing, parks, open space or recreational facilities.

Environmental Assessment Factor	Impact Code	Impact Evaluation
<p><b>Transportation and Accessibility</b></p>	<p>2</p>	<p>The Proposed Action would result in construction of three evaporation ponds and repair/replacement of the sanitary sewer collection main pipeline. The Proposed Action would generate a short-term increase in traffic associated with construction workers, equipment and delivery. However, these trips would not have a substantial effect on local roadways given the low volumes of traffic in the area. Construction activities will create traffic along of Alcott Road which is an unimproved roadway. Because dust has been previously identified as an air-quality concern, temporary maintenance activities to Alcott Road may be necessary during construction. Additionally, the poor condition of the bridge across the “R” Drain that provides access to the Niland County Sanitary District WWTP poses some safety concerns that will need to be addressed during construction (The Holt Group 2016, p. 69). Due to the deteriorating condition of the bridge that accesses the WWTP site, a detour of all heavy equipment and delivery trucks would be required. This action would require an encroachment permit or temporary construction easement for an alternate construction route from the County of Imperial. Construction activities within the Caltrans right-of- way would not result in any lane closures but would necessitate an Encroachment permit from Caltrans (The Holt Group 2016, p. 115). Short term construction traffic increases would be minimized with implementation of standard engineering and traffic management practices. A Traffic Plan will need to be developed and reviewed by the corresponding agencies. Any potential increases in traffic and delays on roadways near the WWTP site would be temporary and consistent with the duration of the construction period. The Proposed Action will adhere to all conditions imposed by Imperial County. The Proposed Action does not include any aviation components, nor would it cause any aviation safety risks. Therefore, the proposed project would not result in a change of air traffic patterns or result in substantial safety risks.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
<b>NATURAL FEATURES</b>		
<b>Unique Natural Features, Water Resources</b>	2	<p>The Farmland Mapping and Monitoring Program monitors conversion of the state’s agricultural lands. Niland is primarily surrounded by Farmland of Local Importance with some areas of Prime Farmland and Farmland of Statewide Importance. However, the Proposed Action would be located on “Other Land” in area that has been previously disturbed with a portion of the pipeline extending through Farmland of Local Importance (See Attachment “H” “California Important Farmland 1984-2020” Map). The pipeline would be buried and not result in a conversion of farmland. No noteworthy unique natural features are located on the 58-acre parcel as it has been previously disturbed. No impact to unique natural features or water resources is anticipated in association with implementation of the Proposed Action.</p>
<b>Vegetation, Wildlife</b>		<p>No wildlife species exist within the Niland County Sanitary District WWTP site as it is surrounded by a fence and developed. Representative species occurring within the proposed 58-acre purchase site include giant reed, canary Island date palm, blue elderberry, tamarisk, and Mexican fan palm. Representative species along sewer pipeline improvements route include cheese bush, wingscale, desert holly, desert saltbush, California buckwheat, desertthorn, mesquite, and spiny senna. Douglas mugwort also occurs within the route of the proposed sewer pipeline improvements (The Holt Group 2016, p. 51). The agricultural setting of the Niland County Sanitary District WWTP make it suitable for burrowing owl habitat. The biological survey completed in March of 2016 identified no special status species. Due to the proximity to known habitat for the Burrowing Owl, which is listed as a Species of Special Concern, a habitat assessment was performed during the site survey. It was determined that the areas were not suitable for Burrowing Owl nesting and foraging habitats. Although no special species or species of concern were identified at the proposed 58-acre parcel, the parcel’s proximity to the Salton Sea make it an important avian nesting and foraging habitat. Special precautions should be taking during construction activities that occur during the nesting season. Mitigation measures BIO-1 and BIO-2 would avoid any impacts to birds or any other wildlife, if present. Documentation: Attachment A, EDR NEPA Check, p. 3 “Natural Areas Map”, and Natural Areas Map Findings, pp. 55-</p>
<b>Other Factors</b>		None applicable.

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**Additional Studies Performed:**

The following studies were prepared for the proposed Niland County Sanitary District Wastewater Treatment Plant as part of the Environmental Assessment completed for the Border Environment Cooperating Commission (BECC); the United State Environmental Protection Agency (US Environmental Protection Agency); and the United State Department of Agriculture – Rural Assistance (USDA).

Preliminary Geotechnical Investigation Report Wastewater Treatment Plant Improvements, Niland County Sanitary District, Imperial County, California Prepared by AMEC Environment & Infrastructure, Inc. September 24, 2013.

Biological Resources Technical Memorandum, Niland Service District Proposed Land Purchase Project, Niland, California. Prepared by Michael Baker International. April, 2016.

Cultural Resources Assessment Niland Services District Proposed Land Purchase Project, Imperial County, California. BCR Consulting, Inc. April 13, 2016.

**Field Inspection** (Date and completed by):

On July 14, 2020, EGI staff performed a survey of the parcel and took photographs of the site and surrounding area.

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**List of Sources, Agencies and Persons Consulted** [40 CFR 1508.9(b)]:

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. 2017. Imperial County Important Farmland 2016. Published June 2017.

California Important Farmland Time Series. <https://maps.conservation.ca.gov/dlrp/ciftimeseries/> Accessed August 13, 2023.

EDR NEPA Search Map Report. 2020. Niland WWTP Alcott Rd Calipatria, CA 92233. Inquiry Number: 6115956.1s. July 9, 2020.

EnviroStor 2020. Accessed at:

<https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=125+alcot+road%2C+niland%2C+ca>  
Referenced in text as (EnviroStor 2020). Accessed July 13, 2020.

Federal Emergency Management Agency (FEMA). 2008. Flood Insurance Rate Map Imperial County California and Incorporated Areas. Map Number 06025C0725C. Effective Date: September 26, 2008.

Geotracker 2020. Accessed at:

<https://www.geotracker.waterborads.ca.gov/map/?CMD=runreport&myaddress=125+alcot+road%2C+niland%2C+ca> Referenced in text as (GeoTracker 2020). Accessed July 13, 2020.

Imperial County Air Pollution Control District. 2007. *2007 ICAPCD CEQA Handbook for the Preparation of Air Quality Impact Assessments*. November 2007.

Imperial County, 2008. Imperial County General Plan, Imperial County Land Use Plan. Updated March 1, 2007.

Information for Planning and Consultation. 2023. <https://ipac.ecosphere.fws.gov/location/index> Accessed August 13, 2023.

Lauchner Pries, Shannon. State Historian II. State Office of Historic Preservation. 2020.

National Wild and Scenic Rivers System. Accessed at <https://www.rivers.gov/california.php> Accessed July 13, 2020.

The Holt Group. 2016. Niland Sanitary District Wastewater Treatment Plant Improvements Environmental Assessment (EA). June 29, 2016.

United States Environmental Protection Agency. 2020. Pacific Southwest Region 9, Groundwater, Sole Source Aquifer. Accessed at:

<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b> Accessed July 14, 2020.

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**List of Permits Obtained:**

Dust Control Permit – Imperial County Air Pollution Control District

Grading Permit – City of Imperial, Community Development Department, Building & Safety Division

Conditional Use Permit from Imperial County

Lot Line Adjustment from the Imperial County Planning & Development Services & Public Works Department

Waste Discharge Requirements (WDR) Permit from the California Regional Water Quality Control Board  
Encroachment Permits from Imperial County Public Works Department

Encroachment Permits from Imperial Irrigation District

Encroachment Permits from California Department of Transportation (Caltrans)

**Public Outreach** [24 CFR 50.23 & 58.43]:

The EA/FONSI is available for review at the local Housing and Urban Development (HUD) office located at 1275 Main Street, El Centro, 92243 or the Imperial County Workforce Development Board at 2799 South 4<sup>th</sup> Street, El Centro, 92243. HUD will mail notices to any individual requesting notification.

The Imperial County Workforce Development Office will send notices to any interested individuals or groups interested in the project and will notice the Finding of No Significant Impact (FONSI) in the Imperial Valley Press (in English) and the El Sol del Valley Imperial (in Spanish). In addition, a notice regarding the FONSI will be sent to the State Historic Preservation Office for (SHPO) review and comment; to the HUD at 1725 23<sup>rd</sup> Street, Suite 100, Sacramento, CA 95816; and the Environmental Protection Agency, District#9 Regional Office at 75 Hawthorne Street, San Francisco, CA 94105-3901.

**Cumulative Impact Analysis** [24 CFR 58.32]:

The Proposed Action is in Niland, a sparsely populated area in rural Imperial County. Currently a Fire Station/Cooling Center is under construction in Niland. No other projects are currently under construction or planned in the area at the moment. Therefore, no cumulative impacts would occur.

**Alternatives** [24 CFR 58.40(e); 40 CFR 1508.9]

An alternative involving subsurface wetlands was considered. The Wetlands Alternative would use subsurface wetlands as a passive treatment technology for the removal of the metals and polishing of effluent. The wetlands would accept treated effluent from the existing Niland County Sanitary District Wastewater Treatment Plant which would remain operational under an National Pollutant Discharge Elimination System Permit. The effluent would be processed through the existing WWTP. The subsurface wetlands (shallow basins filled with rock) have a water level below the rock surface that would accept water through orifices as it enters the wetland. The subsurface wetlands will require 2.5 acres with a three-foot depth of rock to accommodate 20,000 square feet of total wetland area. The subsurface wetland would reduce the metals to the permit requirements. Effluent would continue to be point discharged to the R Drain. The new wetlands would be constructed on site without interference with operations except for the final connections. Additionally, key improvements to the wastewater collection system would be made (The Holt Group 2016, p. 14).



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**No Action Alternative** [24 CFR 58.40(e)]:

Under the No Action Alternative, the Proposed Action would not be implemented, and the existing wastewater facilities would continue to be operated and maintained in the current failing condition. No improvements would be made to the wastewater collection system either. However, the No Action Alternative would result in the Niland County Sanitary District WWTP being in non-compliance. Further, the residents of Niland would continue to have water impacted by pollutants. Overall, the long-term health and safety benefits of the Proposed Action outweigh the temporary construction-related impacts.

**Summary of Findings and Conclusions:**

The Proposed Action would result in improved adequacy of sewer collection services and effective wastewater treatment system with a no-point discharge. Any potential impacts that may result from the implementation of any of the proposed actions would be temporary and mitigatable. The proposed Project would result in an overall beneficial impact for the residents of Niland.

---

**Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

<b>Law, Authority, or Factor</b>	<b>Mitigation Measure</b>
	<p><b><i>Mitigation Measure BIO-1:</i></b> Within seven (7) days prior to commencement of grading/construction activities, a qualified biologist shall perform a preconstruction survey within 500 feet from the proposed work limits.</p> <p><b><i>Mitigation Measure BIO-2:</i></b> Should any burrows be discovered during the pre-construction survey, the following mitigation measures, and any other mitigation measures recommended by the biologist, shall be required:</p> <ul style="list-style-type: none"><li>a) A focused burrowing owl survey will be required under CDFG guidelines (Staff Report on Burrowing Owl Mitigation, 1995) within 30 days prior to construction activities.</li><li>b) The District will contract with a qualified biologist to manage the passive relocation of the active burrow located within the zone of construction (Alternative 1). (Staff Report on Burrowing Owl Mitigation, 1995) with consultation with CDFG Bermuda Dunes office. Prior to relocation, two artificial burrows per active burrow to be closed will be installed in the vicinity of the WWTP. Any active burrows found along the sanitary sewer collection pipeline will be sheltered in place to protect during construction.</li></ul>

**Determination:**

**Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

**Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature:  Date: August 23, 2023

Name/Title/Organization: Kevin L. Grant, Managing Principal, Ericsson-Grant, Inc.

Certifying Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name/Title: \_\_\_\_\_

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

**ATTACHMENT A**

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**EDR REPORT**

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**Niland WWTP**

Alcott Rd

Calipatria, CA 92233

Inquiry Number: 6115956.1s

July 09, 2020

# EDR NEPASearch™ Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EDR NEPA Search DESCRIPTION

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

The EDR NEPA Search Map Report provides information which may be used, in conjunction with additional research, to determine whether a proposed site or action will have significant environmental effect.

### TARGET PROPERTY ADDRESS

NILAND WWTP  
ALCOTT RD  
CALIPATRIA, CA 92233

Inquiry #: 6115956.1s  
Date: 7/9/20

### TARGET PROPERTY COORDINATES

Latitude (North):	33.226009 - 33° 13' 33.6"
Longitude (West):	115.526352 - 115° 31' 34.9"
Universal Transverse Mercator:	Zone 11
UTM X (Meters):	637318.9
UTM Y (Meters):	3677118.8

The report provides maps and data for the following items (where available). Search results are provided in the Map Findings Summary on page 2 of this report.

<b>Section</b>	<b>Regulation</b>
<b>Natural Areas Map</b>	
• Federal Lands Data:	
- Officially designated wilderness areas	47 CFR 1.1307(1)
- Officially designated wildlife preserves, sanctuaries and refuges	47 CFR 1.1307(2)
- Wild and scenic rivers	40 CFR 6.302(e)
- Fish and Wildlife	40 CFR 6.302
• Threatened or Endangered Species, Fish and Wildlife, Critical Habitat Data (where available)	47 CFR 1.1307(3); 40 CFR 6.302
<b>Historic Sites Map</b>	
• National Register of Historic Places	47 CFR 1.1307(4); 40 CFR 6.302
• State Historic Places (where available)	
• Indian Reservations	
<b>Flood Plain Map</b>	
• National Flood Hazard Layer Data (where available)	47 CFR 1.1307(6); 40 CFR 6.302
• FEMA Q3 Flood Data (where available)	47 CFR 1.1307(6); 40 CFR 6.302
<b>Wetlands Map</b>	
• National Wetlands Inventory Data (where available)	47 CFR 1.1307(7); 40 CFR 6.302
• State Wetlands Data (where available)	47 CFR 1.1307(7); 40 CFR 6.302
<b>FCC &amp; FAA Map</b>	
• FCC antenna/tower sites, FAA Markings and Obstructions, Airports, Topographic gradient	47 CFR 1.1307(8)

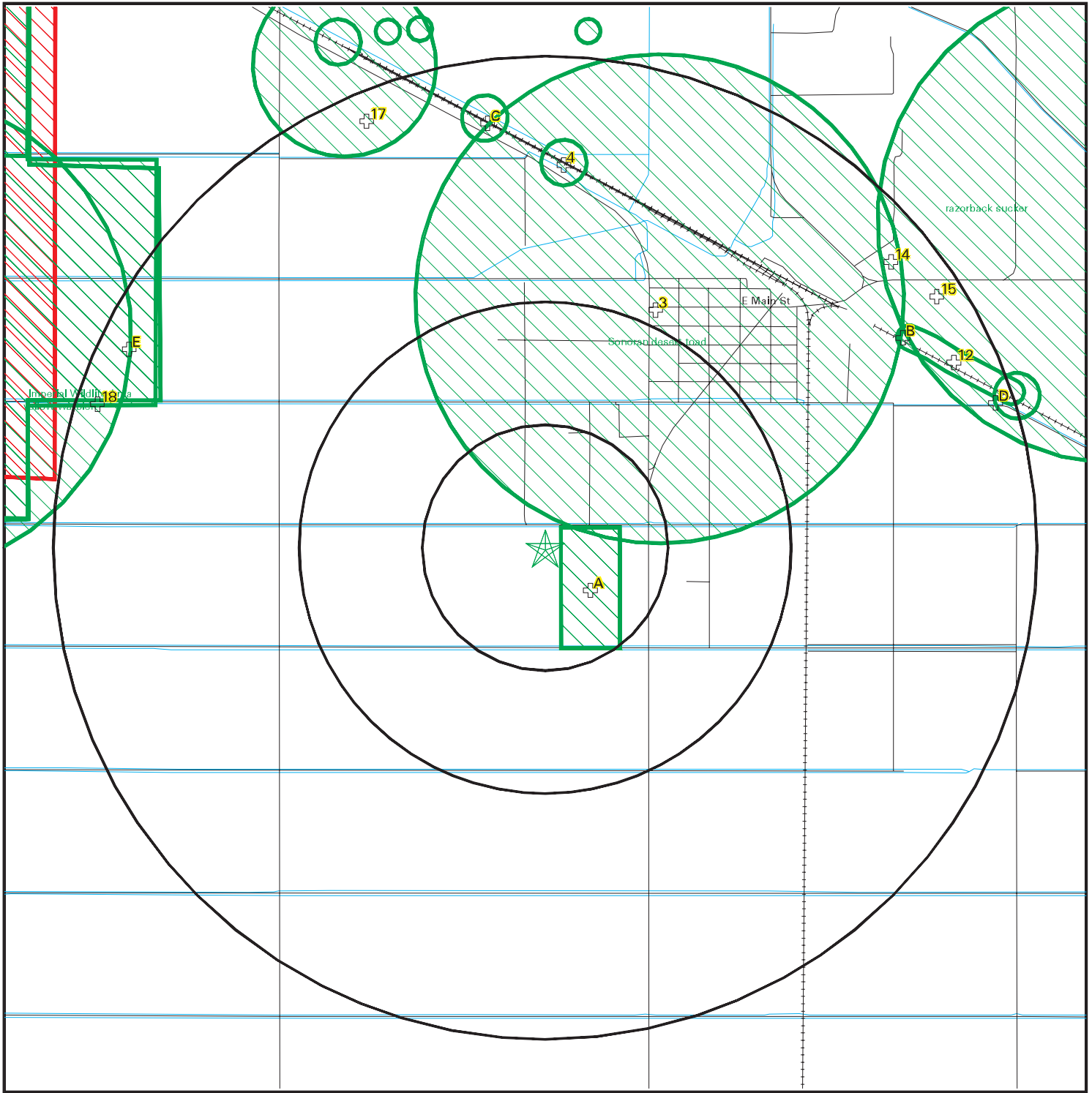
### **Key Contacts and Government Records Searched**

# MAP FINDINGS SUMMARY

The databases searched in this report are listed below. Database descriptions and other agency contact information is contained in the Key Contacts and Government Records Searched section on page 107 of this report.

Applicable Regulation from 47 CFR/FCC Checklist	Database	Search Distance (Miles)	Within Search	Within 1/8 Mile
<b><u>NATURAL AREAS MAP</u></b>				
1.1307a (2) Officially Designated Wildlife Preserve	US Federal Lands	2.00	NO	NO
	US Wilderness Preservation	2.00	NO	NO
	US Federal Lands	2.00	NO	NO
	CA Protected Areas	2.00	YES	YES
	CA Government Lands	2.00	YES	YES
	CA Conservation Easement	2.00	NO	NO
	US Proclamation Boundaries	2.00	NO	NO
	CA ACEC	2.00	NO	NO
	US Scenic River	2.00	NO	NO
	US ACEC	2.00	NO	NO
	CA PCT Lands	2.00	YES	NO
	US NCED	2.00	NO	NO
	US Critical Water Habitat	2.00	NO	NO
	US Critical Land Habitat	2.00	NO	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	US Endangered Species	County	YES	N/A
1.1307a (3) Threatened or Endangered Species or Critical Habitat	CA Endangered Species	2.00	YES	YES
<b><u>HISTORIC SITES MAP</u></b>				
1.1307a (4) Listed or eligible for National Register	CA Historic Landmarks	2.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Natchez Trace National Scenic	2.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Potomac Heritage National Scen	2.00	NO	NO
	Indian Reservations	2.00	NO	NO
1.1307a (4) Listed or eligible for National Register	US Trails	2.00	NO	NO
1.1307a (4) Listed or eligible for National Register	National Register of Hist. Pla	2.00	NO	NO
<b><u>FLOOD PLAIN MAP</u></b>				
1.1307 (6) Located in a Flood Plain	Special Flood Hazard Area (1%)	2.00	NO	NO
1.1307 (6) Located in a Flood Plain	0.2% Annual Chance Flood Hazar	2.00	NO	NO
<b><u>WETLANDS MAP</u></b>				
1.1307 (7) Change in surface features (wetland fill)	NWI	2.00	YES	YES
1.1307 (7) Change in surface features (wetland fill)	STATE	2.00	NO	NO
	CA COASTAL ZONE	20.00	NO	NO
<b><u>FCC &amp; FAA SITES MAP</u></b>				
	Cellular	2.00	YES	NO
	Antenna Structure Registration	2.00	YES	NO
	AM Antenna	2.00	NO	NO
	FM Antenna	2.00	NO	NO
	FAA DOF	2.00	YES	NO
	Airports	2.00	NO	---
	Power Lines	2.00	YES	---

# Natural Areas Map



- |                   |                           |
|-------------------|---------------------------|
| ★ Target Property | ⊕ Locations               |
| ∩ Roads           | ▨ Federal Areas           |
| ∩ County Boundary | ∩ Federal Linear Features |
| ∩ Waterways       | ▨ State Areas             |
| ■ Water           | ∩ State Linear Features   |



SITE NAME: Niland WWTP  
 ADDRESS: Alcott Rd  
 Calipatria CA 92233  
 LAT/LONG: 33.22601 / 115.526354

CLIENT: Ericsson-Grant Inc.  
 CONTACT: Kevin Grant  
 INQUIRY #: 6115956.1s  
 DATE: July 8, 2020

# NATURAL AREAS MAP FINDINGS

## Federal Endangered Species from the U.S. Fish and Wildlife for IMPERIAL County

### Group:Birds

Common Name: Southwestern willow flycatcher  
Status: Endangered

Scientific Name: Empidonax traillii extimus

Common Name: Western snowy plover  
Status: Threatened

Scientific Name: Charadrius alexandrinus nivosus

Common Name: Least Bell's vireo  
Status: Endangered

Scientific Name: Vireo bellii pusillus

Common Name: Yuma clapper rail  
Status: Endangered

Scientific Name: Rallus longirostris yumanensis

### Group:Fishes

Common Name: Desert pupfish  
Status: Endangered

Scientific Name: Cyprinodon macularius

Common Name: Razorback sucker  
Status: Endangered

Scientific Name: Xyrauchen texanus

### Group:Flowering Plants

Common Name: Peirson's milk-vetch  
Status: Threatened

Scientific Name: Astragalus magdalenae var. peirsonii

### Group:Insects

Common Name: Quino checkerspot butterfly  
Status: Endangered

Scientific Name: Euphydryas editha quino (=E. e. wrighti)

### Group:Mammals

Common Name: Peninsular bighorn sheep  
Status: Endangered

Scientific Name: Ovis canadensis nelsoni

### Group:Reptiles

Common Name: Desert tortoise  
Status: Threatened

Scientific Name: Gopherus agassizii

## Federal Endangered Species from the U.S. Fish and Wildlife for CA State

### Group:Amphibians

Common Name: Western spadefoot  
Status: Under Review

Scientific Name: Spea hammondi

Common Name: Channel Islands slender salamander  
Status: Species of Concern

Scientific Name: Batrachoseps pacificus pacificus

Common Name: Limestone salamander  
Status: Under Review

Scientific Name: Hydromantes brunus

Common Name: Large-blotched ensatina  
Status: Species of Concern

Scientific Name: Ensatina eschscholtzii klauberi

Common Name: Oregon spotted frog

Scientific Name: Rana pretiosa

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Threatened

<p>Common Name: Lowland leopard (=San Felipe leopard) frog Status: Species of Concern</p>	<p>Scientific Name: <i>Rana yavapaiensis</i></p>
<p>Common Name: Del Norte salamander Status: Species of Concern</p>	<p>Scientific Name: <i>Plethodon elongatus</i></p>
<p>Common Name: Owens Valley web-toes salamander Status: Species of Concern</p>	<p>Scientific Name: <i>Hydromantes</i> sp.</p>
<p>Common Name: Mount Lyell salamander Status: Species of Concern</p>	<p>Scientific Name: <i>Hydromantes platycephalus</i></p>
<p>Common Name: Foothill yellow-legged frog Status: Under Review</p>	<p>Scientific Name: <i>Rana boylei</i></p>
<p>Common Name: Breckenridge Mountain slender salamander Status: Species of Concern</p>	<p>Scientific Name: <i>Batrachoseps</i> sp.</p>
<p>Common Name: California tiger Salamander Status: Endangered</p>	<p>Scientific Name: <i>Ambystoma californiense</i></p>
<p>Common Name: Kern Plateau salamander Status: Under Review</p>	<p>Scientific Name: <i>Batrachoseps robustus</i></p>
<p>Common Name: Lesser slender salamander Status: Under Review</p>	<p>Scientific Name: <i>Batrachoseps minor</i></p>
<p>Common Name: Yellow-blotched ensatina Status: Species of Concern</p>	<p>Scientific Name: <i>Ensatina eschscholtzii croceator</i></p>
<p>Common Name: Northern red-legged frog Status: Species of Concern</p>	<p>Scientific Name: <i>Rana aurora aurora</i></p>
<p>Common Name: Relictual slender salamander Status: Under Review</p>	<p>Scientific Name: <i>Batrachoseps relictus</i></p>
<p>Common Name: Cascades frog Status: Under Review</p>	<p>Scientific Name: <i>Rana cascadae</i></p>
<p>Common Name: Inyo Mountains slender salamander Status: Under Review</p>	<p>Scientific Name: <i>Batrachoseps campi</i></p>
<p>Common Name: Shasta salamander Status: Under Review</p>	<p>Scientific Name: <i>Hydromantes shastae</i></p>
<p>Common Name: Arizona toad Status: Under Review</p>	<p>Scientific Name: <i>Bufo microscaphus microscaphus</i></p>
<p>Common Name: Kern Canyon slender salamander Status: Under Review</p>	<p>Scientific Name: <i>Batrachoseps simatus</i></p>
<p>Common Name: Black toad Status: Species of Concern</p>	<p>Scientific Name: <i>Bufo exsul</i></p>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Tailed frog  
Status: Species of Concern

Scientific Name: *Ascaphus truei*

#### Group:Arachnids

Common Name: Carlow's Cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Aphrastochthonius similis*

Common Name: Hom's micro-blind harvestman  
Status: Species of Concern

Scientific Name: *Microcina homi*

Common Name: Lum's micro-blind harvestman  
Status: Species of Concern

Scientific Name: *Microcina lumi*

Common Name: Edgewood blind harvestman  
Status: Species of Concern

Scientific Name: *Calcina minor*

Common Name: Lee's micro-blind harvestman  
Status: Species of Concern

Scientific Name: *Microcina leei*

Common Name: Jung's micro-blind harvestman  
Status: Under Review

Scientific Name: *Microcina jungi*

Common Name: Grubbs' cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Aphrastochthonius grubbsi*

Common Name: Music Hall Cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Pseudogarypus orpheus*

Common Name: Lacey's cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Larca laceyi*

Common Name: Empire Cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Microcreagris imperialis*

Common Name: Santa Cruz telemid spider  
Status: Species of Concern

Scientific Name: *Telema* sp.

Common Name: Aalbu's cave pseudoscorpion  
Status: Species of Concern

Scientific Name: *Archeolarca aalbui*

Common Name: Monterey Dunes scorpion  
Status: Species of Concern

Scientific Name: *Pauroctonus maritimus*

Common Name: Tiburon micro-blind harvestman  
Status: Species of Concern

Scientific Name: *Microcina tiburona*

#### Group:Birds

Common Name: Xantus'sMurrelet  
Status: Candidate

Scientific Name: *Synthliboramphus hypoleucus*

Common Name: Spotted Towhee  
Status: Species of Concern

Scientific Name: *Pipilo maculatus clementae*

Common Name: Cooper's hawk

Scientific Name: *Accipiter cooperii*

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: Grasshopper sparrow  
Status: Species of Concern

Scientific Name: *Ammodramus savannarum* ssp. *perpallidus*

Common Name: Black-backed woodpecker  
Status: Under Review

Scientific Name: *picoides arcticus*

Common Name: Tufted Puffin  
Status: Under Review

Scientific Name: *Fratercula cirrhata*

Common Name: Sharp shinned hawk  
Status: Species of Concern

Scientific Name: *Accipiter striatus*

Common Name: Common Yellowthroat  
Status: Species of Concern

Scientific Name: *Geothlypis trichas sinuosa*

Common Name: Yuma clapper rail  
Status: Endangered

Scientific Name: *Rallus longirostris yumanensis*

Common Name: Southwestern willow flycatcher  
Status: Endangered

Scientific Name: *Empidonax traillii extimus*

Common Name: Southern California rufous-crowned  
sparrow  
Status: Species of Concern

Scientific Name: *Aimophila ruficeps canescens*

Common Name: California spotted Owl  
Status: Under Review

Scientific Name: *Strix occidentalis occidentalis*

Common Name: Tricolored blackbird  
Status: Under Review

Scientific Name: *Agelaius tricolor*

Common Name: San Joaquin LeConte's thrasher  
Status: Species of Concern

Scientific Name: *Toxostoma lecontei macmillanorum*

Common Name: Eagle Mountain scrub jay  
Status: Species of Concern

Scientific Name: *Aphelocoma coerulescens cana*

Common Name: Elegant tern  
Status: Species of Concern

Scientific Name: *Sterna elegans*

Common Name: Least bittern  
Status: Species of Concern

Scientific Name: *Ixobrychus exilis hesperis*

Common Name: Song Sparrow  
Status: Species of Concern

Scientific Name: *Melospiza melodia pusillula*

Common Name: Little willow flycatcher  
Status: Species of Concern

Scientific Name: *Empidonax traillii brewsteri*

Common Name: Song Sparrow  
Status: Species of Concern

Scientific Name: *Melospiza melodia samuelis*

Common Name: Large-billed savannah sparrow  
Status: Species of Concern

Scientific Name: *Passerculus sandwichensis rostratus*

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Black tern  
Status: Species of Concern

Scientific Name: *Chlidonias niger*

Common Name: Song Sparrow  
Status: Species of Concern

Scientific Name: *Melospiza melodia maxillaris*

Common Name: Fulvous whistling duck  
Status: Species of Concern

Scientific Name: *Dendrocygna bicolor*

Common Name: Belding's savannah sparrow  
Status: Species of Concern

Scientific Name: *Passerculus sandwichensis beldingi*

Common Name: Bell's sage sparrow  
Status: Species of Concern

Scientific Name: *Amphispiza belli belli*

#### Group: Conifers and Cycads

Common Name: Monterey cypress  
Status: Species of Concern

Scientific Name: *Cupressus macrocarpa*

Common Name: Torrey, Del Mar pine  
Status: Species of Concern

Scientific Name: *Pinus torreyana torreyana*

Common Name: Tecate cypress  
Status: Species of Concern

Scientific Name: *Cupressus forbesii*

Common Name: Bolander's beach pine  
Status: Species of Concern

Scientific Name: *Pinus contorta bolanderi*

Common Name: Monterey pine  
Status: Species of Concern

Scientific Name: *Pinus radiata*

Common Name: Torrey Island pine  
Status: Species of Concern

Scientific Name: *Pinus torreyana insularis*

Common Name: Mendocino cypress  
Status: Species of Concern

Scientific Name: *Cupressus goveniana pigmaea*

Common Name: Yellow cedar  
Status: Under Review

Scientific Name: *Callitropsis nootkatensis*

#### Group: Crustaceans

Common Name: [Unnamed] isopod  
Status: Species of Concern

Scientific Name: *Caecidotea tomalensis*

Common Name: Vernal pool tadpole shrimp  
Status: Endangered

Scientific Name: *Lepidurus packardi*

Common Name: Longhorn fairy shrimp  
Status: Endangered

Scientific Name: *Branchinecta longiantenna*

Common Name: California freshwater shrimp  
Status: Endangered

Scientific Name: *Syncaris pacifica*

Common Name: Mono Lake brine shrimp

Scientific Name: *Artemia monica*



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: Conservancy fairy shrimp  
Status: Endangered

Scientific Name: Branchinecta conservatio

Group: Ferns and Allies

Common Name: Crater Lake grap fern  
Status: Species of Concern

Scientific Name: Botrychium pumicola nealleyi

Common Name: No common name  
Status: Species of Concern

Scientific Name: Botrychium crenulatum

Group: Fishes

Common Name: Rough sculpin  
Status: Species of Concern

Scientific Name: Cottus asperimus

Common Name: Kern River rainbow trout  
Status: Species of Concern

Scientific Name: Oncorhynchus mykiss gilberti

Common Name: Steelhead  
Status: Endangered

Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: Goose Lake redband trout  
Status: Species of Concern

Scientific Name: Oncorhynchus mykiss ssp.

Common Name: Eagle Lake rainbow Trout  
Status: Under Review

Scientific Name: Oncorhynchus mykiss aquilarum

Common Name: Flannelmouth sucker  
Status: Species of Concern

Scientific Name: Catostomus latipinnis

Common Name: Steelhead  
Status: Under Review

Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: longfin smelt  
Status: Candidate

Scientific Name: Spirinchus thaleichthys

Common Name: Benton Valley speckled dace  
Status: Species of Concern

Scientific Name: Rhinichthys osculus ssp.

Common Name: Jenny Creek sucker  
Status: Species of Concern

Scientific Name: Catostomus rimiculus ssp.

Common Name: Arroyo chub  
Status: Species of Concern

Scientific Name: Gila orcuttii

Common Name: Steelhead  
Status: Threatened

Scientific Name: Oncorhynchus (=Salmo) mykiss

Common Name: Owens speckled dace  
Status: Species of Concern

Scientific Name: Rhinichthys osculus ssp.

Common Name: Red Hills roach  
Status: Species of Concern

Scientific Name: Lavinia symmetricus ssp.

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Santa Ana speckled dace Status: Species of Concern	Scientific Name: <i>Rhinichthys osculus</i> ssp.
Common Name: Shoshone pupfish Status: Species of Concern	Scientific Name: <i>Cyprinodon nevadensis shoshone</i>
Common Name: Long Valley speckled dace Status: Species of Concern	Scientific Name: <i>Rhinichthys osculus</i> ssp.
Common Name: Klamath largescale sucker Status: Species of Concern	Scientific Name: <i>Catostomus snyderi</i>
Common Name: Goose Lake sucker Status: Species of Concern	Scientific Name: <i>Catostomus occidentalis lacusanserinus</i>
Common Name: Sacramento perch Status: Species of Concern	Scientific Name: <i>Archoplites interruptus</i>
Common Name: green sturgeon Status: Threatened	Scientific Name: <i>Acipenser medirostris</i>
Common Name: Pit roach Status: Species of Concern	Scientific Name: <i>Lavinia symmetricus mitrulus</i>
Common Name: Warner Valley redband trout Status: Species of Concern	Scientific Name: <i>Oncorhynchus mykiss</i> ssp.
Common Name: Amargosa Canyon speckled dace Status: Species of Concern	Scientific Name: <i>Rhinichthys osculus</i> ssp.
Common Name: Russian River tule perch Status: Species of Concern	Scientific Name: <i>Hysteroecarpus traskii</i> pomo
Common Name: Goose Lake lamprey Status: Species of Concern	Scientific Name: <i>Lampetra tridentata</i> ssp.
Common Name: Gualala roach Status: Species of Concern	Scientific Name: <i>Lavinia symmetricus parvipinnis</i>

#### Group: Flowering Plants

Common Name: Marin dwarf-flax Status: Threatened	Scientific Name: <i>Hesperolinon congestum</i>
Common Name: Fleshy owl's-clover Status: Threatened	Scientific Name: <i>Castilleja campestris</i> ssp. <i>succulenta</i>
Common Name: Pine Hill ceanothus Status: Endangered	Scientific Name: <i>Ceanothus roderickii</i>
Common Name: Hoover's spurge Status: Threatened	Scientific Name: <i>Chamaesyce hooveri</i>
Common Name: Suisun thistle Status: Endangered	Scientific Name: <i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Vine Hill clarkia Status: Endangered	Scientific Name: <i>Clarkia imbricata</i>
Common Name: Soft bird's-beak Status: Endangered	Scientific Name: <i>Cordylanthus mollis</i> ssp. <i>mollis</i>
Common Name: Baker's larkspur Status: Endangered	Scientific Name: <i>Delphinium bakeri</i>
Common Name: Yellow larkspur Status: Endangered	Scientific Name: <i>Delphinium luteum</i>
Common Name: lone (incl. Irish Hill) buckwheat Status: Endangered	Scientific Name: <i>Eriogonum apricum</i> (incl. var. <i>prostratum</i> )
Common Name: Pine Hill flannelbush Status: Endangered	Scientific Name: <i>Fremontodendron californicum</i> ssp. <i>decumbens</i>
Common Name: El Dorado bedstraw Status: Endangered	Scientific Name: <i>Galium californicum</i> ssp. <i>sierrae</i>
Common Name: Sebastopol meadowfoam Status: Endangered	Scientific Name: <i>Limnanthes vinculans</i>
Common Name: San Joaquin Orcutt grass Status: Threatened	Scientific Name: <i>Orcuttia inaequalis</i>
Common Name: Sacramento Orcutt grass Status: Endangered	Scientific Name: <i>Orcuttia viscida</i>
Common Name: Pitkin Marsh lily Status: Endangered	Scientific Name: <i>Lilium pardalinum</i> ssp. <i>pitkinense</i>
Common Name: Few-flowered navarretia Status: Endangered	Scientific Name: <i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> (=N. <i>pauciflora</i> )
Common Name: Many-flowered navarretia Status: Endangered	Scientific Name: <i>Navarretia leucocephala</i> ssp. <i>plieantha</i>
Common Name: Colusa grass Status: Threatened	Scientific Name: <i>Neostapfia colusana</i>
Common Name: Hairy Orcutt grass Status: Endangered	Scientific Name: <i>Orcuttia pilosa</i>
Common Name: Lake County stonecrop Status: Endangered	Scientific Name: <i>Parvisedum leiocarpum</i>
Common Name: Calistoga allocarya Status: Endangered	Scientific Name: <i>Plagiobothrys strictus</i>
Common Name: Napa bluegrass Status: Endangered	Scientific Name: <i>Poa napensis</i>
Common Name: Hartweg's golden sunburst	Scientific Name: <i>Pseudobahia bahiifolia</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Endangered

Common Name: San Joaquin adobe sunburst  
Status: Threatened

Scientific Name: *Pseudobahia peirsonii*

Common Name: Layne's butterweed  
Status: Threatened

Scientific Name: *Senecio layneae*

Common Name: Keck's Checker-mallow  
Status: Endangered

Scientific Name: *Sidalcea keckii*

Common Name: Kenwood Marsh checker-mallow  
Status: Endangered

Scientific Name: *Sidalcea oregana ssp. valida*

Common Name: Metcalf Canyon jewelflower  
Status: Endangered

Scientific Name: *Streptanthus albidus ssp. albidus*

Common Name: Presidio Manzanita  
Status: Endangered

Scientific Name: *Arctostaphylos hookeri var. ravenii*

Common Name: Sonoma sunshine  
Status: Endangered

Scientific Name: *Blennosperma bakeri*

Common Name: Tiburon mariposa lily  
Status: Threatened

Scientific Name: *Calochortus tiburonensis*

Common Name: Coyote ceanothus  
Status: Endangered

Scientific Name: *Ceanothus ferrisiae*

Common Name: Sonoma spineflower  
Status: Endangered

Scientific Name: *Chorizanthe valida*

Common Name: Tiburon jewelflower  
Status: Endangered

Scientific Name: *Streptanthus niger*

Common Name: Hidden Lake bluecurls  
Status: Threatened

Scientific Name: *Trichostema austromontanum ssp. compactum*

Common Name: Fountain thistle  
Status: Endangered

Scientific Name: *Cirsium fontinale var. fontinale*

Common Name: Presidio clarkia  
Status: Endangered

Scientific Name: *Clarkia franciscana*

Common Name: Palmate-bracted bird's beak  
Status: Endangered

Scientific Name: *Cordylanthus palmatus*

Common Name: Tiburon paintbrush  
Status: Endangered

Scientific Name: *Castilleja affinis ssp. neglecta*

Common Name: Sonoma alopecurus  
Status: Endangered

Scientific Name: *Alopecurus aequalis var. sonomensis*

Common Name: lone manzanita  
Status: Threatened

Scientific Name: *Arctostaphylos myrtifolia*

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Pallid manzanita Status: Threatened	Scientific Name: <i>Arctostaphylos pallida</i>
Common Name: Solano grass Status: Endangered	Scientific Name: <i>Tuctoria mucronata</i>
Common Name: San Mateo thornmint Status: Endangered	Scientific Name: <i>Acanthomintha obovata</i> ssp. <i>duttonii</i>
Common Name: Clara Hunt's milk-vetch Status: Endangered	Scientific Name: <i>Astragalus clarianus</i>
Common Name: Chinese Camp brodiaea Status: Threatened	Scientific Name: <i>Brodiaea pallida</i>
Common Name: Mariposa pussypaws Status: Threatened	Scientific Name: <i>Calyptridium pulchellum</i>
Common Name: Stebbins' morning-glory Status: Endangered	Scientific Name: <i>Calystegia stebbinsii</i>
Common Name: White sedge Status: Endangered	Scientific Name: <i>Carex albida</i>
Common Name: Santa Clara Valley dudleya Status: Endangered	Scientific Name: <i>Dudleya setchellii</i>
Common Name: Island tree poppy Status: Species of Concern	Scientific Name: <i>Dendromecon rigida rhamnoides</i>
Common Name: Northcoast birds-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus maritimus palustris</i>
Common Name: Loch Lomond coyote thistle Status: Endangered	Scientific Name: <i>Eryngium constancei</i>
Common Name: Red Hills vervain Status: Threatened	Scientific Name: <i>Verbena californica</i>
Common Name: San Francisco lessingia Status: Endangered	Scientific Name: <i>Lessingia germanorum</i> (=L.g. var. <i>germanorum</i> )
Common Name: Payson's jewelflower Status: Species of Concern	Scientific Name: <i>Caulanthus simulans</i>
Common Name: Santa Barbara false-lupine Status: Species of Concern	Scientific Name: <i>Thermopsis macrophylla agnina</i>
Common Name: Beaked clarkia Status: Species of Concern	Scientific Name: <i>Clarkia rostrata</i>
Common Name: Boundary Peak rock-cress Status: Species of Concern	Scientific Name: <i>Boechera pinzliae</i>
Common Name: Island jepsonia Status: Species of Concern	Scientific Name: <i>Jepsonia malvifolia</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Channel Island tree poppy Status: Species of Concern	Scientific Name: <i>Dendromecon rigida</i> ssp. <i>harfordii</i>
Common Name: Springville clarkia Status: Threatened	Scientific Name: <i>Clarkia springvillensis</i>
Common Name: Pennell's bird's-beak Status: Endangered	Scientific Name: <i>Cordylanthus tenuis</i> ssp. <i>capillaris</i>
Common Name: Hollisteria Status: Species of Concern	Scientific Name: <i>Hollisteria lanata</i>
Common Name: Tuolumne fawn-lily Status: Species of Concern	Scientific Name: <i>Erythronium tuolumnense</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Holocarpa virgata elongata</i>
Common Name: Peirson's spring beauty Status: Species of Concern	Scientific Name: <i>Claytonia lanceolata peirsonii</i>
Common Name: Hispid birds-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus mollis hispidus</i>
Common Name: Wart-stemmed ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus verrucosus</i>
Common Name: Oso manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos osoensis</i>
Common Name: Dudley's lousewort Status: Species of Concern	Scientific Name: <i>Pedicularis dudleyi</i>
Common Name: Pierpoint Springs liveforever Status: Species of Concern	Scientific Name: <i>Dudleya cymosa costifolia</i>
Common Name: Mono milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus monoensis monoensis</i>
Common Name: Kern mallow Status: Endangered	Scientific Name: <i>Eremalche kernensis</i>
Common Name: San Mateo woolly sunflower Status: Endangered	Scientific Name: <i>Eriophyllum latilobum</i>
Common Name: Long-petaled lewisia Status: Species of Concern	Scientific Name: <i>Lewisia longipetala</i>
Common Name: Monterrey manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos montereyensis</i>
Common Name: [Unnamed] checkermallow Status: Species of Concern	Scientific Name: <i>Sidalcea malvaeflora patula</i>
Common Name: Howe's hedgehog cactus Status: Species of Concern	Scientific Name: <i>Echinocereus engelmannii howei</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Tuolumne coyote-thistle Status: Species of Concern	Scientific Name: <i>Eryngium pinnatisectum</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Lessingia micradenia micradenia</i>
Common Name: Santa Catalina Island manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos catalinae</i>
Common Name: Cuyamaca raspberry Status: Species of Concern	Scientific Name: <i>Rubus glaucifolius ganderi</i>
Common Name: [Unnamed] milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus lentiformis</i>
Common Name: Brandegee eriastrum Status: Species of Concern	Scientific Name: <i>Eriastrum brandegeae</i>
Common Name: San Clemente Island brodiaea Status: Species of Concern	Scientific Name: <i>Triteleia clementina</i>
Common Name: Summer-holly Status: Species of Concern	Scientific Name: <i>Comarostaphylis diversifolia diversifolia</i>
Common Name: Borrego Valley peppergrass Status: Species of Concern	Scientific Name: <i>Lepidium flavum felipense</i>
Common Name: Ahart's dwarf rush Status: Species of Concern	Scientific Name: <i>Juncus leiospermus var. ahartii</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Chorizanthe polygonoides longispina</i>
Common Name: San Francisco wallflower Status: Species of Concern	Scientific Name: <i>Erysimum franciscanum</i>
Common Name: Diablo rock-rose Status: Species of Concern	Scientific Name: <i>Helianthella castanea</i>
Common Name: Carmel Valley malacothrix Status: Species of Concern	Scientific Name: <i>Malacothrix saxatilis arachnoidea</i>
Common Name: Lupine, San Mateo tre Status: Species of Concern	Scientific Name: <i>Lupinus arboreus eximius</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Dendrographa leucophaea</i>
Common Name: Butte County meadowfoam Status: Endangered	Scientific Name: <i>Limnanthes floccosa ssp. californica</i>
Common Name: Bakersfield cactus Status: Endangered	Scientific Name: <i>Opuntia treleasei</i>
Common Name: Klamath manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos klamathensis</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Laguna Mountains aster Status: Species of Concern	Scientific Name: Machaeranthera asteroides lagunensis
Common Name: Heart-leaved pitcher-sage Status: Species of Concern	Scientific Name: Lepechinia cardiophylla
Common Name: Caper-fruited tropidocarpum Status: Species of Concern	Scientific Name: Tropidocarpum capparideum
Common Name: Santiago Peak phacelia Status: Species of Concern	Scientific Name: Phacelia suaveolens keckii
Common Name: Panamint daisy Status: Species of Concern	Scientific Name: Enceliopsis covillei
Common Name: Shasta River mariposa lily Status: Species of Concern	Scientific Name: Calochortus monanthus
Common Name: Jaeger's bush milk-vetch Status: Species of Concern	Scientific Name: Astragalus pachypus jaegeri
Common Name: Mouse buckwheat Status: Species of Concern	Scientific Name: Eriogonum nudum murinum
Common Name: Ashy phacelia Status: Species of Concern	Scientific Name: Phacelia distans
Common Name: Little mousetail Status: Species of Concern	Scientific Name: Myosurus minimus apus
Common Name: Orcutt's dudleya Status: Species of Concern	Scientific Name: Dudleya attentuata orcuttii
Common Name: Star-fruited, small stonecrop Status: Species of Concern	Scientific Name: Sedum radiatum depauperatum
Common Name: Bodie Hills draba Status: Species of Concern	Scientific Name: Cusickiella quadricostata
Common Name: Pappose spikeweed Status: Species of Concern	Scientific Name: Hemizonia parryi congdonii
Common Name: Hoover's rosinweed Status: Species of Concern	Scientific Name: Calycadenia hooveri
Common Name: Glandular dwarf-flax Status: Species of Concern	Scientific Name: Hesperolinon adenophyllum
Common Name: Otay lotus Status: Species of Concern	Scientific Name: Lotus crassifolius otayensis
Common Name: Kingston Mountains cinquefoil Status: Species of Concern	Scientific Name: Ivesia patellifera
Common Name: Bear Valley wooly-pod Status: Species of Concern	Scientific Name: Astragalus leucolobus



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Bellinger's meadowfoam Status: Species of Concern	Scientific Name: <i>Limnanthes floccosa bellingeriana</i>
Common Name: San Clemente Island milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus nevinii</i>
Common Name: Bear Valley pyrrocoma Status: Species of Concern	Scientific Name: <i>Pyrrocoma uniflora gossypina</i>
Common Name: Munz's mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus palmeri munzii</i>
Common Name: Orcutt's linanthus Status: Species of Concern	Scientific Name: <i>Linanthus orcuttii</i>
Common Name: Tiburon tarweed Status: Species of Concern	Scientific Name: <i>Hemizonia multicaulis vernalis</i>
Common Name: Warner Springs lessingia Status: Species of Concern	Scientific Name: <i>Lessingia glandulifera tomentosa</i>
Common Name: Descanso milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus oocarpus</i>
Common Name: Klamath gentian Status: Species of Concern	Scientific Name: <i>Gentiana plurisetosa</i>
Common Name: Little San Bernardino Mountains gilia Status: Species of Concern	Scientific Name: <i>Gilia maculata</i>
Common Name: Mono Lake lupine Status: Species of Concern	Scientific Name: <i>Lupinus duranii</i>
Common Name: Suisun aster Status: Species of Concern	Scientific Name: <i>Aster chilensis lentus</i>
Common Name: Kruckeberg's jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus morrisonii kruckebergii</i>
Common Name: Ferris' milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus tener</i> var. <i>ferrisae</i>
Common Name: Salinas Valley popcornflower Status: Species of Concern	Scientific Name: <i>Plagiobothrys uncinatus</i>
Common Name: Twisselmann's nemacladus Status: Species of Concern	Scientific Name: <i>Nemacladus twisselmannii</i>
Common Name: Orange lupine Status: Species of Concern	Scientific Name: <i>Lupinus citrinus</i>
Common Name: Cuesta Pass sidalcea Status: Species of Concern	Scientific Name: <i>Sidalcea hickmanii anomala</i>
Common Name: San Francisco popcornflower Status: Species of Concern	Scientific Name: <i>Plagiobothrys torreyi</i> var. <i>diffusus</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Catalina ironwood Status: Species of Concern	Scientific Name: <i>Lyonothamnus floribundus floribundus</i>
Common Name: Orcutt's brodiaea Status: Species of Concern	Scientific Name: <i>Brodiaea orcuttii</i>
Common Name: Parry's horkelia Status: Species of Concern	Scientific Name: <i>Horkelia parryi</i>
Common Name: Panamint Mountains lupine Status: Species of Concern	Scientific Name: <i>Lupinus magnificus magnificus</i>
Common Name: Mono Hot Springs evening-primrose Status: Species of Concern	Scientific Name: <i>Camissonia sierrae alticola</i>
Common Name: Forked fiddleneck Status: Species of Concern	Scientific Name: <i>Amsinckia vernicosa furcata</i>
Common Name: Jaeger's caulostramina Status: Species of Concern	Scientific Name: <i>Caulostramina jaegeri</i>
Common Name: San Bernardino butterweed Status: Species of Concern	Scientific Name: <i>Packera bernardina</i>
Common Name: Island tree mallow Status: Species of Concern	Scientific Name: <i>Lavatera assurgentiflora</i>
Common Name: Wedge-leaved horkelia Status: Species of Concern	Scientific Name: <i>Horkelia cuneata sericea</i>
Common Name: Arroyo Seco bush-mallow Status: Species of Concern	Scientific Name: <i>Malacothamnus palmeri lucianus</i>
Common Name: Sand mesa manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos rudis</i>
Common Name: Sonoma ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus sonomensis</i>
Common Name: Santa Lucia manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos luciana</i>
Common Name: Refugio manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos refugioensis</i>
Common Name: Donner Pass buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum umbellatum torreyanum</i>
Common Name: Orcutt's bird's-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus orcuttianus</i>
Common Name: Piute buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum breedlovei breedlovei</i>
Common Name: San Bernardino Mountains dudleya Status: Species of Concern	Scientific Name: <i>Dudleya abramsii affinis</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Dwarf goldenstar Status: Species of Concern	Scientific Name: <i>Bloomeria humilis</i>
Common Name: Ojai fritillary Status: Species of Concern	Scientific Name: <i>Fritillaria ojaiensis</i>
Common Name: Humboldt Bay owl's clover Status: Species of Concern	Scientific Name: <i>Castilleja ambigua humboldtiensis</i>
Common Name: Prostrate hosackia Status: Species of Concern	Scientific Name: <i>Lotus nuttallianus</i>
Common Name: San Luis Obispo monardella Status: Species of Concern	Scientific Name: <i>Monardella frutescens</i>
Common Name: Closed-lip beardtongue Status: Species of Concern	Scientific Name: <i>Penstemon personatus</i>
Common Name: Velvety false-lupine Status: Species of Concern	Scientific Name: <i>Thermopsis macrophylla semota</i>
Common Name: Nuttall's scrub oak Status: Species of Concern	Scientific Name: <i>Quercus dumosa</i>
Common Name: San Gabriel manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos gabrielensis</i>
Common Name: Hanaupah laphamia Status: Species of Concern	Scientific Name: <i>Perityle villosa</i>
Common Name: Seaside, Coulter's daisy Status: Species of Concern	Scientific Name: <i>Lasthenia glabrata coulteri</i>
Common Name: Sp. nov. ined. (chaparral) beargrass Status: Species of Concern	Scientific Name: <i>Nolina</i> sp.
Common Name: Palmer's mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus palmeri palmeri</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Ivesia longibracteata</i>
Common Name: Ertter's milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus ertterae</i>
Common Name: Heartscale Status: Species of Concern	Scientific Name: <i>Atriplex cordulata</i>
Common Name: Mt. Eddy draba Status: Species of Concern	Scientific Name: <i>Draba carnosula</i>
Common Name: Shirley Meadows mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus westonii</i>
Common Name: Candleholder dudleya Status: Species of Concern	Scientific Name: <i>Dudleya candelabrum</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Santa Cruz gooseberry Status: Species of Concern	Scientific Name: <i>Ribes thacherianum</i>
Common Name: Munz cholla Status: Species of Concern	Scientific Name: <i>Opuntia munzii</i>
Common Name: Lakeside ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus cyaneus</i>
Common Name: Point Reyes meadowfoam Status: Species of Concern	Scientific Name: <i>Limnanthes douglasii sulphurea</i>
Common Name: Los Angeles sunflower Status: Species of Concern	Scientific Name: <i>Helianthus nuttallii parishii</i>
Common Name: Howell's lewisia Status: Species of Concern	Scientific Name: <i>Lewisia cotyledon howellii</i>
Common Name: Santa Barbara Island cream cups Status: Species of Concern	Scientific Name: <i>Platystemon californicus ciliatus</i>
Common Name: Island snapdragon Status: Species of Concern	Scientific Name: <i>Gambelia speciosa</i>
Common Name: Adobe sanicle Status: Species of Concern	Scientific Name: <i>Sanicula maritima</i>
Common Name: Nissenan manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos nissenana</i>
Common Name: Parish's rock-cress Status: Species of Concern	Scientific Name: <i>Arabis parishii</i>
Common Name: Tiehm's rock-cress Status: Species of Concern	Scientific Name: <i>Arabis tiehmii</i>
Common Name: Yosemite wooly-sunflower Status: Species of Concern	Scientific Name: <i>Eriophyllum nubigenum</i>
Common Name: Jones layia Status: Species of Concern	Scientific Name: <i>Layia jonesii</i>
Common Name: White bear desert-poppy Status: Species of Concern	Scientific Name: <i>Arctomecon merriamii</i>
Common Name: Panamint dudleya Status: Species of Concern	Scientific Name: <i>Dudleya saxosa saxosa</i>
Common Name: Dunn's mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus dunnii</i>
Common Name: California dissanthelium Status: Species of Concern	Scientific Name: <i>Dissanthelium californicum</i>
Common Name: Temblor buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum temblorense</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Shaw's agave Status: Species of Concern	Scientific Name: <i>Agave shawii</i>
Common Name: Pickering ivesia Status: Species of Concern	Scientific Name: <i>Ivesia pickeringii</i>
Common Name: Forked buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum bifurcatum</i>
Common Name: San Bernardino rock-cress Status: Species of Concern	Scientific Name: <i>Arabis breweri pecuniaria</i>
Common Name: Butterworth's buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum butterworthianum</i>
Common Name: Borrego aster Status: Species of Concern	Scientific Name: <i>Xylorhiza orcuttii</i>
Common Name: The Lassics lupine Status: Species of Concern	Scientific Name: <i>Lupinus constancei</i>
Common Name: Giant spanishneedle Status: Species of Concern	Scientific Name: <i>Palafoxia arida gigantea</i>
Common Name: San Clemente island bedstraw Status: Species of Concern	Scientific Name: <i>Galium catalinense acrispum</i>
Common Name: Pecho manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos pechoensis</i>
Common Name: Lavin's milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus oophorus lavinii</i>
Common Name: Tahquitz ivesia Status: Species of Concern	Scientific Name: <i>Ivesia callida</i>
Common Name: Adder's-mouth Status: Species of Concern	Scientific Name: <i>Malaxis brachypoda</i>
Common Name: Black-flowered figwort Status: Species of Concern	Scientific Name: <i>Scrophularia atrata</i>
Common Name: Indian Valley brodiaea Status: Species of Concern	Scientific Name: <i>Brodiaea coronaria rosea</i>
Common Name: Alkali mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus striatus</i>
Common Name: Franciscan manzanita Status: Endangered	Scientific Name: <i>Arctostaphylos franciscana</i>
Common Name: Coast lily Status: Species of Concern	Scientific Name: <i>Lilium maritimum</i>
Common Name: Mt. Gleason paintbrush Status: Species of Concern	Scientific Name: <i>Castilleja gleasonii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Gander's pitcher-sage Status: Species of Concern	Scientific Name: <i>Lepechinia ganderi</i>
Common Name: Mt. Tamalpais thistle Status: Species of Concern	Scientific Name: <i>Cirsium hydrophilum vaseyi</i>
Common Name: Greene's mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus greenei</i>
Common Name: Yellow-tubered toothwort Status: Species of Concern	Scientific Name: <i>Cardamine nuttallii</i>
Common Name: Mendocino bush-mallow Status: Species of Concern	Scientific Name: <i>Malacothamnus mendocinensis</i>
Common Name: Mono phacelia Status: Species of Concern	Scientific Name: <i>Phacelia monoensis</i>
Common Name: Butte County catchfly Status: Species of Concern	Scientific Name: <i>Silene occidentalis longistipitata</i>
Common Name: Barton Flats horkelia Status: Species of Concern	Scientific Name: <i>Horkelia wilderae</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Ivesia jaegeri</i>
Common Name: Rusby's desert-mallow Status: Species of Concern	Scientific Name: <i>Sphaeralcea rusbyi eremicola</i>
Common Name: Oregon fireweed Status: Species of Concern	Scientific Name: <i>Epilobium oreganum</i>
Common Name: Pallid birds-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus tenuis pallescens</i>
Common Name: San Clemente Island evening-primrose Status: Species of Concern	Scientific Name: <i>Camissonia guadalupensis clementina</i>
Common Name: Carmel Valley bush-mallow Status: Species of Concern	Scientific Name: <i>Malacothamnus palmeri involucratus</i>
Common Name: Coast wallflower Status: Species of Concern	Scientific Name: <i>Erysimum ammophilum</i>
Common Name: Hutchinson's delphinium Status: Species of Concern	Scientific Name: <i>Delphinium hutchinsonae</i>
Common Name: Otay manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos otayensis</i>
Common Name: Jacumba milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus douglasii perstrictus</i>
Common Name: Santa Susana tarweed Status: Species of Concern	Scientific Name: <i>Hemizonia minthornii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Santa Lucia pogogyne Status: Species of Concern	Scientific Name: Pogogyne clareana
Common Name: Moreno currant Status: Species of Concern	Scientific Name: Ribes canthariforme
Common Name: Pine City stonecrop Status: Species of Concern	Scientific Name: Sedum pinetorum
Common Name: [Unnamed] milk-vetch Status: Species of Concern	Scientific Name: Astragalus tegetarioides
Common Name: Cienega Seca oxytheca Status: Species of Concern	Scientific Name: Oxytheca parishii ciengensis
Common Name: Tracy's sanicle Status: Species of Concern	Scientific Name: Sanicula tracyi
Common Name: Tulare horkelia Status: Species of Concern	Scientific Name: Horkelia tularensis
Common Name: Palmer's haplopappus Status: Species of Concern	Scientific Name: Haplopappus palmeri palmeri
Common Name: Northcoast semaphore grass Status: Species of Concern	Scientific Name: Pleuropogon hooverianus
Common Name: Mt. Hamilton jewelflower Status: Species of Concern	Scientific Name: Streptanthus callistus
Common Name: Recurved larkspur Status: Species of Concern	Scientific Name: Delphinium recurvatum
Common Name: Hospital Canyon larkspur Status: Species of Concern	Scientific Name: Delphinium californicum interius
Common Name: Island wallflower Status: Species of Concern	Scientific Name: Erysimum insulare insulare
Common Name: Talus fritillary Status: Species of Concern	Scientific Name: Fritillaria falcata
Common Name: Mendocino gentian Status: Species of Concern	Scientific Name: Gentiana setigera
Common Name: Lost Hills saltbush Status: Species of Concern	Scientific Name: Atriplex vallicola
Common Name: Vine Hill manzanita Status: Species of Concern	Scientific Name: Arctostaphylos densiflora
Common Name: Bolander's horkelia Status: Species of Concern	Scientific Name: Horkelia bolanderi
Common Name: Howell's montia Status: Species of Concern	Scientific Name: Montia howellii

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: July gold Status: Species of Concern	Scientific Name: <i>Dedeckera eurekensis</i>
Common Name: Santa Catalina figwort Status: Species of Concern	Scientific Name: <i>Scrophularia villosa</i>
Common Name: Ahart's whitlow-wort Status: Species of Concern	Scientific Name: <i>Paronychia ahartii</i>
Common Name: Fern-leaved ironwood Status: Species of Concern	Scientific Name: <i>Lyonothamnus floribundus asplenifolius</i>
Common Name: The Lassics sandwort Status: Species of Concern	Scientific Name: <i>Minuartia decumbens</i>
Common Name: Fremont's rosinweed Status: Species of Concern	Scientific Name: <i>Calycadenia fremontii</i>
Common Name: Valley spearscale Status: Species of Concern	Scientific Name: <i>Atriplex joaquiniana</i>
Common Name: Secund jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus glandulosus hoffmanii</i>
Common Name: Plumas ivesia Status: Species of Concern	Scientific Name: <i>Ivesia sericoleuca</i>
Common Name: Arid northern clarkia Status: Species of Concern	Scientific Name: <i>Clarkia borealis arida</i>
Common Name: Bonny Doon manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos silvicola</i>
Common Name: Santa Catalina monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus traskiae</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Eschscholzia multiflora twisselmannii</i>
Common Name: Barstow wooly-sunflower Status: Species of Concern	Scientific Name: <i>Eriophyllum mohavense</i>
Common Name: Pitkin Marsh paintbrush Status: Species of Concern	Scientific Name: <i>Castilleja uliginosa</i>
Common Name: Pleasant Valley mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus clavatus avius</i>
Common Name: Short-jointed beavertail cactus Status: Species of Concern	Scientific Name: <i>Opuntia basilaris brachyclada</i>
Common Name: San Bernardino Mountains monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus exiguus</i>
Common Name: Scott Valley phacelia Status: Species of Concern	Scientific Name: <i>Phacelia greenei</i>



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: San Luis serpentine dudleya Status: Species of Concern	Scientific Name: <i>Dudleya abramsii bettinae</i>
Common Name: Marble Mountain catchfly Status: Species of Concern	Scientific Name: <i>Silene marmorensis</i>
Common Name: Parrish's brittlescale Status: Species of Concern	Scientific Name: <i>Atriplex parishii</i>
Common Name: Flax-like monardella Status: Species of Concern	Scientific Name: <i>Monardella linoides oblonga</i>
Common Name: Western bog violet Status: Species of Concern	Scientific Name: <i>Viola primulifolia occidentalis</i>
Common Name: Johnston's buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum microthecum johnstonii</i>
Common Name: Whipple's monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus whipplei</i>
Common Name: Drymaria dwarf-flax Status: Species of Concern	Scientific Name: <i>Hesperolinon drymarioides</i>
Common Name: Jared's peppergrass Status: Species of Concern	Scientific Name: <i>Lepidium jaredii jaredii</i>
Common Name: Crisp monardella Status: Species of Concern	Scientific Name: <i>Monardella crispa</i>
Common Name: Humboldt Bay gumplant Status: Species of Concern	Scientific Name: <i>Grindelia stricta blakei</i>
Common Name: Jointed buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum intrafractum</i>
Common Name: Charlotte's phacelia Status: Species of Concern	Scientific Name: <i>Phacelia nashiana</i>
Common Name: Heckner's lewisia Status: Species of Concern	Scientific Name: <i>Lewisia cotyledon heckneri</i>
Common Name: Munz's hedgehog cactus Status: Species of Concern	Scientific Name: <i>Echinocereus engelmannii munzii</i>
Common Name: Goldenbush Status: Species of Concern	Scientific Name: <i>Isocoma arguta</i>
Common Name: Bodie Hills rock-cress Status: Species of Concern	Scientific Name: <i>Arabis bodiensis</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Stylocline masonii</i>
Common Name: Compact cobweb thistle Status: Species of Concern	Scientific Name: <i>Cirsium occidentale compactum</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: No common name Status: Species of Concern	Scientific Name: <i>Teloschistes villosus</i>
Common Name: Peirson's morning-glory Status: Species of Concern	Scientific Name: <i>Calystegia peirsonii</i>
Common Name: The Cedars globe-lily Status: Species of Concern	Scientific Name: <i>Calochortus raichei</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Lessingia arachnoidea</i>
Common Name: Sierra Valley ivesia Status: Species of Concern	Scientific Name: <i>Ivesia aperta aperta</i>
Common Name: Ballona cinquefoil Status: Species of Concern	Scientific Name: <i>Potentilla multijuga</i>
Common Name: Silver-haired ivesia Status: Species of Concern	Scientific Name: <i>Ivesia argyrocoma</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Heterodermia erinacea</i>
Common Name: San Benito spineflower Status: Species of Concern	Scientific Name: <i>Chorizanthe biloba immemora</i>
Common Name: Cedar Crest allocarya Status: Species of Concern	Scientific Name: <i>Plagiobothrys glyptocarpus modestus</i>
Common Name: Trinity phacelia Status: Species of Concern	Scientific Name: <i>Phacelia dalesiana</i>
Common Name: Kingston bedstraw Status: Species of Concern	Scientific Name: <i>Galium hilendiae kingstonense</i>
Common Name: Short-leaved dudleya Status: Species of Concern	Scientific Name: <i>Dudleya blochmaniae blochmaniae</i>
Common Name: [Unnamed] linanthus Status: Species of Concern	Scientific Name: <i>Linanthus concinnus</i>
Common Name: Point Reyes stickyseed Status: Species of Concern	Scientific Name: <i>Blennosperma nanum robustum</i>
Common Name: Mason's lilaeopsis Status: Species of Concern	Scientific Name: <i>Lilaeopsis masonii</i>
Common Name: Mojave tarweed Status: Species of Concern	Scientific Name: <i>Hemizonia mohavensis</i>
Common Name: Island hazardia Status: Species of Concern	Scientific Name: <i>Hazardia cana</i>
Common Name: Parish's gooseberry Status: Species of Concern	Scientific Name: <i>Ribes divaricatum parishii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Mt. Hamilton thistle Status: Species of Concern	Scientific Name: <i>Cirsium fontinale campylon</i>
Common Name: Conejo buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum crocatum</i>
Common Name: Masonic Mountain jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus oliganthus</i>
Common Name: Panamint Mountains buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum microthecum panamintense</i>
Common Name: Egg Lake monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus pygmaeus</i>
Common Name: Black wooly-pod Status: Species of Concern	Scientific Name: <i>Astragalus funereus</i>
Common Name: Cuyamaca larkspur Status: Species of Concern	Scientific Name: <i>Delphinium hesperium cuyamacae</i>
Common Name: Cooke's phacelia Status: Species of Concern	Scientific Name: <i>Phacelia cookei</i>
Common Name: Marin checkermallow Status: Species of Concern	Scientific Name: <i>Sidalcea hickmanii viridis</i>
Common Name: Henderson's bentgrass Status: Species of Concern	Scientific Name: <i>Agrostis hendersonii</i>
Common Name: Nine Mile Canyon phacelia Status: Species of Concern	Scientific Name: <i>Phacelia novemmillensis</i>
Common Name: Curve-podded Mojave milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus mohavensis hemigyris</i>
Common Name: Freed's jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus brachiatus hoffmanii</i>
Common Name: Snake cholla Status: Species of Concern	Scientific Name: <i>Opuntia parryi serpentina</i>
Common Name: Wolf's evening-primrose Status: Species of Concern	Scientific Name: <i>Oenothera wolfii</i>
Common Name: Stephens' beardtongue Status: Species of Concern	Scientific Name: <i>Penstemon stephensii</i>
Common Name: Parish's phacelia Status: Species of Concern	Scientific Name: <i>Phacelia parishii</i>
Common Name: Blasdale's bentgrass Status: Species of Concern	Scientific Name: <i>Agrostis blasdalei blasdalei</i>
Common Name: [Unnamed] scurf-pea Status: Species of Concern	Scientific Name: <i>Pediomelum castoreum</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Shaggy-hair lupine Status: Species of Concern	Scientific Name: <i>Lupinus spectabilis</i>
Common Name: Short-lobed broomrape Status: Species of Concern	Scientific Name: <i>Orobanche parishii brachyloba</i>
Common Name: San Nicolas Island lomatium Status: Species of Concern	Scientific Name: <i>Lomatium insulare</i>
Common Name: Tecopa bird's-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus tecopensis</i>
Common Name: Many-stemmed liveforever Status: Species of Concern	Scientific Name: <i>Dudleya multicaulis</i>
Common Name: Hearst's ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus hearstiorum</i>
Common Name: Variegated dudleya Status: Species of Concern	Scientific Name: <i>Dudleya variegata</i>
Common Name: Sandmat manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos pumila</i>
Common Name: Northern California black walnut Status: Species of Concern	Scientific Name: <i>Juglans californica hindsii</i>
Common Name: Delta tule-pea Status: Species of Concern	Scientific Name: <i>Lathyrus jepsonii jepsonii</i>
Common Name: Stebbins lewisia Status: Species of Concern	Scientific Name: <i>Lewisia stebbinsii</i>
Common Name: Wilkin's harebell Status: Species of Concern	Scientific Name: <i>Campanula wilkinsiana</i>
Common Name: Cup Lake draba Status: Species of Concern	Scientific Name: <i>Draba asterophora macrocarpa</i>
Common Name: Mecca aster Status: Species of Concern	Scientific Name: <i>Xylorhiza cognata</i>
Common Name: Small-leaved rose Status: Species of Concern	Scientific Name: <i>Rosa minutifolia</i>
Common Name: Cambria morning-glory Status: Species of Concern	Scientific Name: <i>Calystegia subacaulis episcopalis</i>
Common Name: San Benito thornmint Status: Species of Concern	Scientific Name: <i>Acanthomintha obovata obovata</i>
Common Name: Bear Valley phlox Status: Species of Concern	Scientific Name: <i>Phlox dolichantha</i>
Common Name: Owens Peak lomatium Status: Species of Concern	Scientific Name: <i>Lomatium shevockii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Wild Rose Canyon buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum eremicola</i>
Common Name: Mt. Saint Helena morning-glory Status: Species of Concern	Scientific Name: <i>Calystegia collina oxyphylla</i>
Common Name: Large red buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum grande rubescens</i>
Common Name: Dog Valley ivesia Status: Species of Concern	Scientific Name: <i>Ivesia aperta canina</i>
Common Name: Del Norte manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos nortensis</i>
Common Name: [Unnamed] milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus gilmanii</i>
Common Name: Seaside birds-beak Status: Species of Concern	Scientific Name: <i>Cordylanthus rigidus littoralis</i>
Common Name: Sp. nov. ined. (Del Norte) rock-cress Status: Species of Concern	Scientific Name: <i>Arabis</i> sp.
Common Name: California marina Status: Species of Concern	Scientific Name: <i>Marina orcuttii orcuttii</i>
Common Name: San Felipe monardella Status: Species of Concern	Scientific Name: <i>Monardella nana leptosiphon</i>
Common Name: San Francisco owl's-clover Status: Species of Concern	Scientific Name: <i>Triphysaria floribunda</i>
Common Name: San Benito fritillary Status: Species of Concern	Scientific Name: <i>Fritillaria viridea</i>
Common Name: Red-flowered lotus Status: Species of Concern	Scientific Name: <i>Lotus rubriflorus</i>
Common Name: Palmer's grapplinghook Status: Species of Concern	Scientific Name: <i>Harpagonella palmeri palmeri</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Stylocline citroleum</i>
Common Name: Humboldt lily Status: Species of Concern	Scientific Name: <i>Lilium humboldtii ocellatum</i>
Common Name: Death Valley sandpaperplant Status: Species of Concern	Scientific Name: <i>Petalonyx thurberi gilmanii</i>
Common Name: San Diego marsh elder Status: Species of Concern	Scientific Name: <i>Iva hayesiana</i>
Common Name: Merced phacelia Status: Species of Concern	Scientific Name: <i>Phacelia ciliata opaca</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Tomales clarkia Status: Species of Concern	Scientific Name: <i>Clarkia concinna raichei</i>
Common Name: Spinysepaled eryngo Status: Species of Concern	Scientific Name: <i>Eryngium spinosepalum</i>
Common Name: Bakersfield saltbush Status: Species of Concern	Scientific Name: <i>Atriplex tularensis</i>
Common Name: Dorr's Cabin jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus morrisonii hirtiflorus</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Malacothrix crispifolia</i>
Common Name: Mt. Tedoc linanthus Status: Species of Concern	Scientific Name: <i>Linanthus nuttallii howellii</i>
Common Name: Smooth tarplant Status: Species of Concern	Scientific Name: <i>Hemizonia pungens laevis</i>
Common Name: Pajaroensis manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos pajaroensis</i>
Common Name: Rock sanicle Status: Species of Concern	Scientific Name: <i>Sanicula saxatilis</i>
Common Name: Kernville poppy Status: Species of Concern	Scientific Name: <i>Eschscholzia procera</i>
Common Name: Mt. Hamilton coreopsis Status: Species of Concern	Scientific Name: <i>Coreopsis hamiltonii</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Lessingia micradenia glabrata</i>
Common Name: Aphanisma Status: Species of Concern	Scientific Name: <i>Aphanisma blitoides</i>
Common Name: Mosquin's clarkia Status: Species of Concern	Scientific Name: <i>Clarkia mosquinii mosquinii</i>
Common Name: East Bay clarkia Status: Species of Concern	Scientific Name: <i>Clarkia concinna automixa</i>
Common Name: Silky cryptantha Status: Species of Concern	Scientific Name: <i>Cryptantha crinita</i>
Common Name: Bensoniella Status: Species of Concern	Scientific Name: <i>Bensoniella oregona</i>
Common Name: Santa Margarita manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos pilosula pilosula</i>
Common Name: Robison's monardella Status: Species of Concern	Scientific Name: <i>Monardella robisonii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Brewer's dwarf-flax Status: Species of Concern	Scientific Name: <i>Hesperolinon breweri</i>
Common Name: Howell's alkali grass Status: Species of Concern	Scientific Name: <i>Puccinellia howellii</i>
Common Name: Maritime california-lilac Status: Species of Concern	Scientific Name: <i>Ceanothus maritimus</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Collinsia antonina</i>
Common Name: Schreiber's manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos glutinosa</i>
Common Name: Pale-yellow layia Status: Species of Concern	Scientific Name: <i>Layia heterotricha</i>
Common Name: Hardham's evening-primrose Status: Species of Concern	Scientific Name: <i>Camissonia hardhamiae</i>
Common Name: Comanche layia Status: Species of Concern	Scientific Name: <i>Layia leucopappa</i>
Common Name: Southern tarplant Status: Species of Concern	Scientific Name: <i>Hemizonia parryi australis</i>
Common Name: Howell's tauschia Status: Species of Concern	Scientific Name: <i>Tauschia howellii</i>
Common Name: Lake County dwarf-flax Status: Species of Concern	Scientific Name: <i>Hesperolinon didymocarpum</i>
Common Name: Morrison's jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus morrisonii morrisonii</i>
Common Name: Rincon ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus confusus</i>
Common Name: Little Sur manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos edmundsii</i>
Common Name: Valley sagittaria Status: Species of Concern	Scientific Name: <i>Sagittaria sanfordii</i>
Common Name: Rock lady Status: Species of Concern	Scientific Name: <i>Holmgrenanthe petrophila</i>
Common Name: Cone Peak bedstraw Status: Species of Concern	Scientific Name: <i>Galium californicum lucense</i>
Common Name: Butte County sidalcea Status: Species of Concern	Scientific Name: <i>Sidalcea robusta</i>
Common Name: San Nicolas Island buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum grande timorum</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: No common name Status: Species of Concern	Scientific Name: <i>Malacothrix intermedia</i>
Common Name: Dune larkspur Status: Species of Concern	Scientific Name: <i>Delphinium parryi blochmaniae</i>
Common Name: Amargosa penstemon Status: Species of Concern	Scientific Name: <i>Penstemon fruticiformis amargosae</i>
Common Name: Preston Peak rock-cress Status: Species of Concern	Scientific Name: <i>Arabis mcdonaldiana</i>
Common Name: Thread-leaved penstemon Status: Species of Concern	Scientific Name: <i>Penstemon filiformis</i>
Common Name: Blair's munzothamnus Status: Species of Concern	Scientific Name: <i>Stephanomeria blairii</i>
Common Name: Stebbins' madia Status: Species of Concern	Scientific Name: <i>Madia stebbinsii</i>
Common Name: Mission Canyon bluecup Status: Species of Concern	Scientific Name: <i>Githopsis diffusa filicaulis</i>
Common Name: Saw-toothed lewisia Status: Species of Concern	Scientific Name: <i>Lewisia serrata</i>
Common Name: White-margined penstemon Status: Species of Concern	Scientific Name: <i>Penstemon albomarginatus</i>
Common Name: Contact Mine streptanthus Status: Species of Concern	Scientific Name: <i>Streptanthus brachiatus brachiatus</i>
Common Name: Coast barrel cactus Status: Species of Concern	Scientific Name: <i>Ferocactus viridescens</i>
Common Name: Santa Cruz manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos andersonii</i>
Common Name: San Jacinto bedstraw Status: Species of Concern	Scientific Name: <i>Galium californicum primum</i>
Common Name: Mt. Vision ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus gloriosus porrectus</i>
Common Name: Rock Creek broomrape Status: Species of Concern	Scientific Name: <i>Orobanche valida valida</i>
Common Name: Raiches manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos stanfordiana raichei</i>
Common Name: Sandfood Status: Species of Concern	Scientific Name: <i>Pholisma sonorae</i>
Common Name: Spanish needle onion Status: Species of Concern	Scientific Name: <i>Allium shevockii</i>



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Petaluma popcornflower Status: Species of Concern	Scientific Name: <i>Plagiobothrys mollis vestitus</i>
Common Name: Montara manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos montaraensis</i>
Common Name: [Unnamed] adobe-lily Status: Species of Concern	Scientific Name: <i>Fritillaria pluriflora</i>
Common Name: Snow Mountain buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum nervulosum</i>
Common Name: Supple daisy Status: Species of Concern	Scientific Name: <i>Erigeron supplex</i>
Common Name: Hoover's button-celery Status: Species of Concern	Scientific Name: <i>Eryngium aristulatum hooveri</i>
Common Name: San Luis lupine Status: Species of Concern	Scientific Name: <i>Lupinus ludovicianus</i>
Common Name: Legenere Status: Species of Concern	Scientific Name: <i>Legenere limosa</i>
Common Name: Pink sand-verbena Status: Species of Concern	Scientific Name: <i>Abronia umbellata breviflora</i>
Common Name: Prostrate buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum prociduum</i>
Common Name: Butte County morning-glory Status: Species of Concern	Scientific Name: <i>Calystegia atriplicifolia buttensis</i>
Common Name: San Bernardino Mountains orthocarpus Status: Species of Concern	Scientific Name: <i>Castilleja lasiorhyncha</i>
Common Name: Parry's tetraococcus Status: Species of Concern	Scientific Name: <i>Tetraococcus dioicus</i>
Common Name: Red Rock tarweed Status: Species of Concern	Scientific Name: <i>Hemizonia arida</i>
Common Name: Trinity buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum alpinum</i>
Common Name: Applegate stonecrop Status: Species of Concern	Scientific Name: <i>Sedum oblanceolatum</i>
Common Name: Twisselmann's buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum twisselmannii</i>
Common Name: San Clemente Island buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum giganteum formosum</i>
Common Name: Algodones Dunes sunflower Status: Species of Concern	Scientific Name: <i>Helianthus niveus tephrodes</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Plummer's mariposa lily Status: Species of Concern	Scientific Name: Calochortus plummerae
Common Name: Point Reyes horkelia Status: Species of Concern	Scientific Name: Horkelia marinensis
Common Name: Davidson's bush-mallow Status: Species of Concern	Scientific Name: Malacothamnus davidsonii
Common Name: Bristlecone catseye Status: Species of Concern	Scientific Name: Cryptantha roosiorum
Common Name: Vine Hill ceanothus Status: Species of Concern	Scientific Name: Ceanothus foliosus vineatus
Common Name: Marin knotweed Status: Species of Concern	Scientific Name: Polygonum marinense
Common Name: Hardy Creek barberry Status: Species of Concern	Scientific Name: Berberis nervosa mendocinensis
Common Name: Parasol clover Status: Species of Concern	Scientific Name: Trifolium bolanderi
Common Name: Fragrant fritillary Status: Species of Concern	Scientific Name: Fritillaria liliacea
Common Name: Ziegler's layia Status: Species of Concern	Scientific Name: Layia platyglossa
Common Name: Seaside tarweed Status: Species of Concern	Scientific Name: Hemizonia multicaulis multicaulis
Common Name: Foothill mariposa lily Status: Species of Concern	Scientific Name: Calochortus weedii intermedius
Common Name: Mendocino coast paintbrush Status: Species of Concern	Scientific Name: Castilleja mendocinensis
Common Name: Slough thistle Status: Species of Concern	Scientific Name: Cirsium crassicaule
Common Name: South Coast Range morning-glory Status: Species of Concern	Scientific Name: Calystegia collina venusta
Common Name: Cache Peak buckwheat Status: Species of Concern	Scientific Name: Eriogonum kennedyi pinicola
Common Name: California beaked-rush Status: Species of Concern	Scientific Name: Rhynchospora californica
Common Name: Pringle monardella Status: Species of Concern	Scientific Name: Monardella pringlei
Common Name: Southern island phacelia Status: Species of Concern	Scientific Name: Phacelia floribunda

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Humboldt milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus agnicidus</i>
Common Name: Trask's milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus traskiae</i>
Common Name: Veiny monardella Status: Species of Concern	Scientific Name: <i>Monardella douglasii venosa</i>
Common Name: Tecate tarweed Status: Species of Concern	Scientific Name: <i>Hemizonia floribunda</i>
Common Name: South coast saltbush Status: Species of Concern	Scientific Name: <i>Atriplex pacifica</i>
Common Name: Arroyo de la Cruz manzanita Status: Species of Concern	Scientific Name: <i>Arctostaphylos cruzensis</i>
Common Name: Santa Cruz Island monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus brandegeei</i>
Common Name: Northcoast phacelia Status: Species of Concern	Scientific Name: <i>Phacelia insularis continentis</i>
Common Name: Sand dune phacelia Status: Under Review	Scientific Name: <i>Phacelia argentea</i>
Common Name: Inyo mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus excavatus</i>
Common Name: Webber's milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus webberi</i>
Common Name: Delta coyote-thistle Status: Species of Concern	Scientific Name: <i>Eryngium racemosum</i>
Common Name: Hall's madia Status: Species of Concern	Scientific Name: <i>Madia hallii</i>
Common Name: Red Hills soaproot Status: Species of Concern	Scientific Name: <i>Chlorogalum grandiflorum</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Ceanothus arboreus glaber</i>
Common Name: Guadalupe Island lupine Status: Species of Concern	Scientific Name: <i>Lupinus guadalupensis</i>
Common Name: Sequoia gooseberry Status: Species of Concern	Scientific Name: <i>Ribes tularensis</i>
Common Name: Swamp harebell Status: Species of Concern	Scientific Name: <i>Campanula californica</i>
Common Name: Parry's spineflower Status: Species of Concern	Scientific Name: <i>Chorizanthe parryi parryi</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Parish's bush-mallow Status: Species of Concern	Scientific Name: Malacothamnus parishii
Common Name: Tamalpais manzanita Status: Species of Concern	Scientific Name: Arctostaphylos hookeri montana
Common Name: San Clemente Island brodiaea Status: Species of Concern	Scientific Name: Brodiaea kinkiensis
Common Name: Tamalpais jewelflower Status: Species of Concern	Scientific Name: Streptanthus batrachopus
Common Name: Panoche peppergrass Status: Species of Concern	Scientific Name: Lepidium jaredii album
Common Name: Dacite manzanita Status: Species of Concern	Scientific Name: Arctostaphylos tomentosa daciticola
Common Name: Fresno County bird's-beak Status: Species of Concern	Scientific Name: Cordylanthus tenuis barbatus
Common Name: Bolinas ceanothus Status: Species of Concern	Scientific Name: Ceanothus masonii
Common Name: No common name Status: Species of Concern	Scientific Name: Astragalus lentiginosus antonius
Common Name: San Diego goldenstar Status: Species of Concern	Scientific Name: Muilla clevelandii
Common Name: Hearsts' manzanita Status: Species of Concern	Scientific Name: Arctostaphylos hookeri hearstiorum
Common Name: Orocopia sage Status: Species of Concern	Scientific Name: Salvia greatai
Common Name: Abbott's bush-mallow Status: Species of Concern	Scientific Name: Malacothamnus abbottii
Common Name: Merced monardella Status: Species of Concern	Scientific Name: Monardella leucocephala
Common Name: Alverson's foxtail cactus Status: Species of Concern	Scientific Name: Coryphantha vivipara alversonii
Common Name: San Gabriel River dudleya Status: Species of Concern	Scientific Name: Dudleya cymosa crebrifolia
Common Name: Kern River daisy Status: Species of Concern	Scientific Name: Erigeron multiceps
Common Name: Jepson's onion Status: Species of Concern	Scientific Name: Allium jepsonii
Common Name: Auburua Ranch jewelflower Status: Species of Concern	Scientific Name: Streptanthus insignis lyonii

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Saline Valley phacelia Status: Species of Concern	Scientific Name: Phacelia amabilis
Common Name: Nevada oryctes Status: Species of Concern	Scientific Name: Oryctes nevadensis
Common Name: Kaweah brodiaea Status: Species of Concern	Scientific Name: Brodiaea insignis
Common Name: Baldwin Lake linanthus Status: Species of Concern	Scientific Name: Linanthus killipii
Common Name: Mt. Diablo jewelflower Status: Species of Concern	Scientific Name: Streptanthus hispidus
Common Name: Thorne's buckwheat Status: Species of Concern	Scientific Name: Eriogonum ericifolium thornei
Common Name: Diamond-petaled poppy Status: Species of Concern	Scientific Name: Eschscholzia rhombipetala
Common Name: Showy raillardella Status: Species of Concern	Scientific Name: Raillardella pringlei
Common Name: Scadden Flat checkerbloom Status: Species of Concern	Scientific Name: Sidalcea stipularis
Common Name: Slender mariposa lily Status: Species of Concern	Scientific Name: Calochortus clavatus gracilis
Common Name: Mojave monkey-flower Status: Species of Concern	Scientific Name: Mimulus mohavensis
Common Name: Anthony Peak lupine Status: Species of Concern	Scientific Name: Lupinus antoninus
Common Name: No common name Status: Species of Concern	Scientific Name: Arnica lonchophylla
Common Name: Poison Canyon stickseed Status: Species of Concern	Scientific Name: Hackelia brevicula
Common Name: Borrego bedstraw Status: Species of Concern	Scientific Name: Galium angustifolium borregoense
Common Name: Hickman's onion Status: Species of Concern	Scientific Name: Allium hickmanii
Common Name: One-awned spineflower Status: Species of Concern	Scientific Name: Chorizanthe rectispina
Common Name: Inyo laphamia Status: Species of Concern	Scientific Name: Perityle inyoensis
Common Name: DeDecker's lupine Status: Species of Concern	Scientific Name: Lupinus padre-crowleyi

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Thurber's reedgrass Status: Species of Concern	Scientific Name: Calamagrostis crassiglumis
Common Name: Stebbins' lomatium Status: Species of Concern	Scientific Name: Lomatium stebbinsii
Common Name: Sp. nov. ined. (Pit River) jewelflower Status: Species of Concern	Scientific Name: Streptanthus sp.
Common Name: Mountains Springs bush lupine Status: Species of Concern	Scientific Name: Lupinus excubitus medius
Common Name: Gander butterweed Status: Species of Concern	Scientific Name: Packera ganderi
Common Name: Forest Camp sandwort Status: Species of Concern	Scientific Name: Arenaria macradenia kuschei
Common Name: Monterey ceanothus Status: Species of Concern	Scientific Name: Ceanothus cuneatus rigidus
Common Name: Most beautiful jewelflower Status: Species of Concern	Scientific Name: Streptanthus albidus peramoenus
Common Name: San Francisco gumplant Status: Species of Concern	Scientific Name: Grindelia hirsuta maritima
Common Name: Mt. Hamilton harebell Status: Species of Concern	Scientific Name: Campanula sharsmithiae
Common Name: Congdon's lomatium Status: Species of Concern	Scientific Name: Lomatium congdonii
Common Name: Plaskett Meadows linanthus Status: Species of Concern	Scientific Name: Linanthus harknessii condensatus
Common Name: Lemon colored fawn-lily Status: Species of Concern	Scientific Name: Erythronium citrinum rodrickii
Common Name: Raven's milk-vetch Status: Species of Concern	Scientific Name: Astragalus monoensis ravenii
Common Name: Nevin's wooly-sunflower Status: Species of Concern	Scientific Name: Eriophyllum nevinii
Common Name: California ditaxis Status: Species of Concern	Scientific Name: Ditaxis serrata
Common Name: Tehama dwarf-flax Status: Species of Concern	Scientific Name: Hesperolinon tehamense
Common Name: Piute Mountains jewelflower Status: Species of Concern	Scientific Name: Streptanthus cordatus piutensis
Common Name: No common name Status: Species of Concern	Scientific Name: Calochortus weedii vestus

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Slender pentachaeta Status: Species of Concern	Scientific Name: <i>Pentachaeta exilis aeolica</i>
Common Name: Purple monkey-flower Status: Species of Concern	Scientific Name: <i>Mimulus purpureus purpureus</i>
Common Name: Calistoga ceanothus Status: Species of Concern	Scientific Name: <i>Ceanothus divergens</i>
Common Name: Butte fritillary Status: Species of Concern	Scientific Name: <i>Fritillaria eastwoodiae</i>
Common Name: Pale yellow lupine Status: Species of Concern	Scientific Name: <i>Lupinus luteolus</i>
Common Name: Arroyo de la Cruz mariposa lily Status: Species of Concern	Scientific Name: <i>Calochortus clavatus recurvifolius</i>
Common Name: Umpqua green-gentian Status: Species of Concern	Scientific Name: <i>Frasera fastigiata</i>
Common Name: Canyon Creek stonecrop Status: Species of Concern	Scientific Name: <i>Sedum paradisum</i>
Common Name: Ash Creek ivesia Status: Species of Concern	Scientific Name: <i>Ivesia paniculata</i>
Common Name: Cliff spurge Status: Species of Concern	Scientific Name: <i>euphorbia misera</i>
Common Name: Small-flowered morning-glory Status: Species of Concern	Scientific Name: <i>Convolvulus equitans</i>
Common Name: Beautiful Hulsea Status: Species of Concern	Scientific Name: <i>Hulsea vestita ssp. callicarpha</i>
Common Name: Cleveland's bush monkeyflower Status: Species of Concern	Scientific Name: <i>Diplacus clevelandii</i>
Common Name: Fish's milkwort Status: Species of Concern	Scientific Name: <i>Polygala cornuta var. fishiae</i>
Common Name: Mt. Diablo phacelia Status: Species of Concern	Scientific Name: <i>Phacelia phacelioides</i>
Common Name: Gairdner's yampah Status: Species of Concern	Scientific Name: <i>Perideridia gairdneri gairdneri</i>
Common Name: Santa Catalina Island desert-thorn Status: Species of Concern	Scientific Name: <i>Lycium hassei</i>
Common Name: No common name Status: Species of Concern	Scientific Name: <i>Lecanora xanthosora</i>
Common Name: Stebbins' phacelia Status: Species of Concern	Scientific Name: <i>Phacelia stebbinsii</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Silver, Santa Cruz Island hosackia Status: Species of Concern	Scientific Name: <i>Lotus argophyllus niveus</i>
Common Name: Smooth pungent forsellesia Status: Species of Concern	Scientific Name: <i>Glossopetalon pungens glabra</i>
Common Name: Eastwood's goldenweed Status: Species of Concern	Scientific Name: <i>Ericameria fasciculata</i>
Common Name: Rayless layia Status: Species of Concern	Scientific Name: <i>Layia discoidea</i>
Common Name: San Gabriel bedstraw Status: Species of Concern	Scientific Name: <i>Galium grande</i>
Common Name: Island morning-glory Status: Species of Concern	Scientific Name: <i>Calystegia macrostegia amplissima</i>
Common Name: Santa Barbara Island buckwheat Status: Species of Concern	Scientific Name: <i>Eriogonum giganteum compactum</i>
Common Name: The Geysers panic grass Status: Species of Concern	Scientific Name: <i>Dichanthelium acuminatum acuminatum</i>
Common Name: Flat-seeded spurge Status: Species of Concern	Scientific Name: <i>Chamaesyce platysperma</i>
Common Name: Narrow-leaved nightshade Status: Species of Concern	Scientific Name: <i>Solanum tenuilobatum</i>
Common Name: Green liveforever Status: Species of Concern	Scientific Name: <i>Dudleya virens</i>
Common Name: Three Peaks jewelflower Status: Species of Concern	Scientific Name: <i>Streptanthus morrisonii elatus</i>
Common Name: Big Bear milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus lentiginosus sierrae</i>
Common Name: Deane's milk-vetch Status: Species of Concern	Scientific Name: <i>Astragalus deanei</i>
Common Name: Ft. Tejon wooly-sunflower Status: Species of Concern	Scientific Name: <i>Eriophyllum lanatum hallii</i>
Common Name: El Dorado mule-ears Status: Species of Concern	Scientific Name: <i>Wyethia reticulata</i>
Common Name: Siskiyou onion Status: Species of Concern	Scientific Name: <i>Allium tribracteatum</i>
Common Name: Enterprise clarkia Status: Species of Concern	Scientific Name: <i>Clarkia mosquinii xerophila</i>
Common Name: San Francisco Bay spineflower Status: Species of Concern	Scientific Name: <i>Chorizanthe cuspidata cuspidata</i>



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Santa Cruz silverpuffs Status: Species of Concern	Scientific Name: Stebbinsoseris decipiens
Common Name: Hetch Hetchy monkey-flower Status: Species of Concern	Scientific Name: Mimulus filicaulis
Common Name: Caliente clarkia Status: Species of Concern	Scientific Name: Clarkia tembloriensis ssp. calientensis
Common Name: Lemon lily Status: Species of Concern	Scientific Name: Lilium parryi
Common Name: Two carpeled dwarf-flax Status: Species of Concern	Scientific Name: Hesperolinon bicarpellatum
Common Name: Baker's meadowfoam Status: Species of Concern	Scientific Name: Limnanthes bakeri

#### Group:Insects

Common Name: Denning's cryptic caddisfly Status: Species of Concern	Scientific Name: Cryptochia denningi
Common Name: Shirrtail Creek stonefly Status: Species of Concern	Scientific Name: Megaleuctra sierra
Common Name: Sonoma arctic skipper Status: Species of Concern	Scientific Name: Carterocephalus palaemon ssp.
Common Name: Globose dune beetle Status: Species of Concern	Scientific Name: Coelus globosus
Common Name: Sierra pygmy grasshopper Status: Species of Concern	Scientific Name: Tetrix sierrana
Common Name: Bumblebee scarab Status: Species of Concern	Scientific Name: Lichnanthe ursina
Common Name: Franklin's bumblebee Status: Under Review	Scientific Name: Bombus franklini
Common Name: Gold rush hanging fly Status: Species of Concern	Scientific Name: Orbittacus obscurus
Common Name: Brownish dubiraphian riffle beetle Status: Species of Concern	Scientific Name: Dubiraphia brunnescens
Common Name: Coachella Valley jerusalem cricket Status: Species of Concern	Scientific Name: Stenopelmatus cahuilansis
Common Name: Desert monkey grasshopper Status: Species of Concern	Scientific Name: Psychomastix deserticola
Common Name: Point Conception jerusalem cricket Status: Species of Concern	Scientific Name: Ammopelmatus muwu

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Sacramento anthicid Status: Species of Concern	Scientific Name: <i>Anthicus sacramento</i>
Common Name: Wawona riffle beetle Status: Species of Concern	Scientific Name: <i>Atractelmis wawona</i>
Common Name: San Joaquin tiger beetle Status: Species of Concern	Scientific Name: <i>Cicindela tranquebarica</i> ssp.
Common Name: Sagehen Creek goeracean caddisfly Status: Species of Concern	Scientific Name: <i>Goeracea oregona</i>
Common Name: Hopping's blister beetle Status: Species of Concern	Scientific Name: <i>Lytta hoppingi</i>
Common Name: Kelso Dune glaresis scarab Status: Species of Concern	Scientific Name: <i>Glaresis arenata</i>
Common Name: Wilbur Springs shore fly Status: Species of Concern	Scientific Name: <i>Paracoenia calida</i>
Common Name: Antioch andrenid bee Status: Species of Concern	Scientific Name: <i>Perdita scitula antiochensis</i>
Common Name: Point Reyes blue Status: Species of Concern	Scientific Name: <i>Icaricia icariodes</i> ssp.
Common Name: Simple hydroporus diving beetle Status: Species of Concern	Scientific Name: <i>Hydroporus simplex</i>
Common Name: Antioch cophuran robberfly Status: Species of Concern	Scientific Name: <i>Cophura hurdi</i>
Common Name: MacNeill sooty wing skipper Status: Species of Concern	Scientific Name: <i>Hesperopsis graciellae</i>
Common Name: King's Creek ecclisomyian caddisfly Status: Species of Concern	Scientific Name: <i>Ecclisomyia bilera</i>
Common Name: King's Creek parapsyche caddisfly Status: Species of Concern	Scientific Name: <i>Parapsyche extensa</i>
Common Name: Kings Canyon cryptochian caddisfly Status: Species of Concern	Scientific Name: <i>Cryptochia excella</i>
Common Name: San Clemente Island coenonycha beetle Status: Species of Concern	Scientific Name: <i>Coenonycha clementina</i>
Common Name: Spiny rhyacophilan caddisfly Status: Species of Concern	Scientific Name: <i>Rhyacophila spinata</i>
Common Name: Delta june beetle Status: Species of Concern	Scientific Name: <i>Polyphylla stellata</i>
Common Name: Trinity Alps ground beetle Status: Species of Concern	Scientific Name: <i>Nebria sahlbergii</i> triad

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: San Francisco lacewing Status: Species of Concern	Scientific Name: Nothochrysa californica
Common Name: San Gabriel Mountains blue Status: Species of Concern	Scientific Name: Plejebus saepiolus ssp.
Common Name: White Mountains copper Status: Species of Concern	Scientific Name: Lycaena rubicus ssp.
Common Name: Oso Flaco patch butterfly Status: Species of Concern	Scientific Name: Chlosyne leanira osoflaco
Common Name: Golden-horned caddisfly Status: Species of Concern	Scientific Name: Neothremma genella
Common Name: Rude's long-horned beetle Status: Species of Concern	Scientific Name: Necydalis rudei
Common Name: Busck's gall moth Status: Species of Concern	Scientific Name: Carolella busckana
Common Name: Andrew's marble butterfly Status: Species of Concern	Scientific Name: Euchloe hyantis andrewsi
Common Name: [Unnamed] ground beetle Status: Species of Concern	Scientific Name: Scaphinotus behrensi
Common Name: White Mountains saepiolus blue Status: Species of Concern	Scientific Name: Plejebus saepiolus ssp.
Common Name: White Mountains sandhill skipper Status: Species of Concern	Scientific Name: Polites sabuleti albomontana
Common Name: Greenest tiger beetle Status: Species of Concern	Scientific Name: Cicindela tranquebarica viridissima
Common Name: Siskiyou caddisfly Status: Species of Concern	Scientific Name: Neothremma siskiyou
Common Name: Casey's June Beetle Status: Endangered	Scientific Name: Dinacoma caseyi
Common Name: Channel Islands dune beetle Status: Species of Concern	Scientific Name: Coelus pacificus
Common Name: Hurd's metapogon robberfly Status: Species of Concern	Scientific Name: Metapogon hurdi
Common Name: Molestan blister beetle Status: Species of Concern	Scientific Name: Lytta molesta
Common Name: Nelson's miloderes weevil Status: Species of Concern	Scientific Name: Miloderes nelsoni
Common Name: Lake Tahoe benthic stonefly Status: Species of Concern	Scientific Name: Capnia lacustra

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Bilobed rhyacophilan caddisfly Status: Species of Concern	Scientific Name: Rhyacophila mosana
Common Name: Santa Cruz Island shore weevil Status: Species of Concern	Scientific Name: Trigonoscuta stantoni
Common Name: Ancient ant Status: Species of Concern	Scientific Name: Smithistruma reliquia
Common Name: Pinnacles shield-back katydid Status: Species of Concern	Scientific Name: Idiostatus kathleenae
Common Name: Oso Flaco robber fly Status: Species of Concern	Scientific Name: Ablautus schlingeri
Common Name: Morro Bay blue butterfly Status: Species of Concern	Scientific Name: Icaricia icarioides moroensis
Common Name: Valley mydas fly Status: Under Review	Scientific Name: Rhapsiomidas trochilus
Common Name: Giuliani's dubiraphian riffle beetle Status: Species of Concern	Scientific Name: Dubiraphia giulianii
Common Name: Amphibious caddisfly Status: Species of Concern	Scientific Name: Desmona bethula
Common Name: Cheese-weed moth lacewing Status: Species of Concern	Scientific Name: Oliarces clara
Common Name: Monarch butterfly Status: Under Review	Scientific Name: Danaus plexippus plexippus
Common Name: Humboldt ground beetle Status: Species of Concern	Scientific Name: Scaphinotus longiceps
Common Name: Curved-foot hygrotus diving beetle Status: Species of Concern	Scientific Name: Hygrotus curvipes
Common Name: Mono checkerspot Status: Species of Concern	Scientific Name: Euphydryas editha monoensis
Common Name: White Mountains icarioides blue Status: Species of Concern	Scientific Name: Plejebus icarioides ssp.
Common Name: Pinnacles optioservus riffle beetle Status: Species of Concern	Scientific Name: Optioservus canus
Common Name: Long-tailed caddisfly Status: Species of Concern	Scientific Name: Farula sp.
Common Name: Santa Monica shieldback katydid Status: Species of Concern	Scientific Name: Neduba longipennis
Common Name: Mission blue butterfly Status: Endangered	Scientific Name: Icaricia icarioides missionensis

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Myrtle's silverspot butterfly Status: Endangered	Scientific Name: <i>Speyeria zerene myrtleae</i>
Common Name: San Bruno elfin butterfly Status: Endangered	Scientific Name: <i>Callophrys mossii bayensis</i>
Common Name: Callippe silverspot butterfly Status: Endangered	Scientific Name: <i>Speyeria callippe callippe</i>
Common Name: Delhi Sands flower-loving fly Status: Endangered	Scientific Name: <i>Rhaphiomidas terminatus abdominalis</i>
Common Name: California diplectronon caddisfly Status: Species of Concern	Scientific Name: <i>Diplectrona californica</i>
Common Name: Wandering skipper Status: Species of Concern	Scientific Name: <i>Panoquina errans</i>
Common Name: [Unnamed] riffle beetle Status: Species of Concern	Scientific Name: <i>Microcylleopus similis</i>
Common Name: Spring Mountains icarioides blue Status: Species of Concern	Scientific Name: <i>Plejebus icarioides</i> ssp.
Common Name: Lange's El Segundo Dune weevil Status: Species of Concern	Scientific Name: <i>Onychobaris langei</i>
Common Name: Sandy beach tiger beetle Status: Species of Concern	Scientific Name: <i>Cicindela hirticollis gravida</i>
Common Name: Yellow-banded andrenid bee Status: Species of Concern	Scientific Name: <i>Perdita hirticeps luteocincta</i>
Common Name: Leech's chaetarhrian water scavenger beetle Status: Species of Concern	Scientific Name: <i>Chaetarhria leechi</i>
Common Name: San Gabriel Mountains elfin Status: Species of Concern	Scientific Name: <i>Incisalia mossii</i> ssp.
Common Name: Woolly hydroporus diving beetle Status: Species of Concern	Scientific Name: <i>Hydroporus hirsutus</i>
Common Name: Fort Dick limnephilus caddisfly Status: Species of Concern	Scientific Name: <i>Limnephilus atercus</i>
Common Name: Ciervo aegialian scarab Status: Species of Concern	Scientific Name: <i>Aegialia concinna</i>
Common Name: Cold Spring caddisfly Status: Species of Concern	Scientific Name: <i>Lepidostoma ermanae</i>
Common Name: White Mountains skipper Status: Species of Concern	Scientific Name: <i>Hesperia mirimae</i> ssp.
Common Name: Doyen's trigonoscuta dune weevil	Scientific Name: <i>Trigonoscuta</i> sp.

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: Siskiyou ground beetle  
Status: Species of Concern

Scientific Name: *Nebria gebleri siskiyouensis*

Common Name: Antioch mutillid wasp  
Status: Species of Concern

Scientific Name: *Myrmosula pacifica*

Common Name: Hermes copper butterfly  
Status: Candidate

Scientific Name: *Lycaena hermes*

Common Name: Confusion caddisfly  
Status: Species of Concern

Scientific Name: *Cryptochia shasta*

Common Name: Death Valley june beetle  
Status: Species of Concern

Scientific Name: *Polyphylla erratica*

Common Name: Ford's sand dune moth  
Status: Species of Concern

Scientific Name: *Psammobotys fordii*

Common Name: Dorothy's El Segundo Dune weevil  
Status: Species of Concern

Scientific Name: *Trigonoscuta dorothea dorothea*

Common Name: Santa Catalina Island trigonoscuta weevil  
Status: Species of Concern

Scientific Name: *Trigonoscuta catalina*

Common Name: Saratoga Springs belostoman bug  
Status: Species of Concern

Scientific Name: *Belostoma saratogae*

Common Name: Antioch Dunes anthicid  
Status: Species of Concern

Scientific Name: *Anthicus antiochensis*

Common Name: Wing-shoulder minute moss beetle  
Status: Species of Concern

Scientific Name: *Ochthebius crassalus*

Common Name: Antioch sphecid wasp  
Status: Species of Concern

Scientific Name: *Philanthus nasalis*

Common Name: Dohrn's elegant eucnemid beetle  
Status: Species of Concern

Scientific Name: *Paleoxenus dohrni*

Common Name: Redheaded sphecid wasp  
Status: Species of Concern

Scientific Name: *Eucerceris ruficeps*

Common Name: [Unnamed] riffle beetle  
Status: Species of Concern

Scientific Name: *Microcylleopus fomicoideus*

Common Name: Boharts' blue  
Status: Species of Concern

Scientific Name: *Philotiella speciosa bohartorum*

Common Name: Castle Crags rhyacophilan caddisfly  
Status: Species of Concern

Scientific Name: *Rhyacophila lineata*

Common Name: Middlekauf's shieldback katydid  
Status: Species of Concern

Scientific Name: *Idiostatus middlekaufi*

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Atascadero june beetle Status: Species of Concern	Scientific Name: Polyphylla nubila
Common Name: Travertine band-thigh diving beetle Status: Species of Concern	Scientific Name: Hygrotus fontinalis
Common Name: Leech's skyline diving beetle Status: Species of Concern	Scientific Name: Hydroporus leechi
Common Name: South Forks ground beetle Status: Species of Concern	Scientific Name: Nebria darlingtoni
Common Name: Morrison's blister beetle Status: Species of Concern	Scientific Name: Lytta morrisoni
Common Name: Marin elfin Status: Species of Concern	Scientific Name: Incisalia mossii ssp.
Common Name: Saline Valley snow-front june beetle Status: Species of Concern	Scientific Name: Polyphylla anteronivea
Common Name: Wilbur Springs minute moss beetle Status: Species of Concern	Scientific Name: Ochthebius reticulus
Common Name: Tehachapi Mountain silverspot Status: Species of Concern	Scientific Name: Speyeria egleis tehachapina
Common Name: Valley oak ant Status: Under Review	Scientific Name: Proceratium californicum
Common Name: Coachella giant sand treader cricket Status: Species of Concern	Scientific Name: Macrobaenetes valgum
Common Name: Ricksecker's water scavenger beetle Status: Species of Concern	Scientific Name: Hydrochara rickseckeri
Common Name: Brown-tassel trigonoscuta weevil Status: Species of Concern	Scientific Name: Trigonoscuta brunneotesselata
Common Name: Henne's eucosman moth Status: Species of Concern	Scientific Name: Eucosma hennei
Common Name: Samwell Cave cricket Status: Species of Concern	Scientific Name: Pristoceuthophilus sp.
Common Name: Kelso jerusalem cricket Status: Species of Concern	Scientific Name: Ammopelmatus kelsoensis
Common Name: White sand bear scarab Status: Species of Concern	Scientific Name: Lichnanthe albopilosa
Common Name: Dry Creek cliff strider bug Status: Species of Concern	Scientific Name: Oravelia pege
Common Name: Antioch efferian robberfly Status: Species of Concern	Scientific Name: Efferia antiochi

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: San Emigdio blue  
Status: Species of Concern  
Scientific Name: *Plebulina emigdionis*

Common Name: Blaisdell trigonoscuta weevil  
Status: Species of Concern  
Scientific Name: *Trigonoscuta blaisdelli*

Common Name: Mojave Desert blister beetle  
Status: Species of Concern  
Scientific Name: *Lytta inseparata*

Common Name: Oso Flaco flightless moth  
Status: Species of Concern  
Scientific Name: *Areniscythriss brachypteris*

Common Name: Kelso giant sand treader cricket  
Status: Species of Concern  
Scientific Name: *Macrobaenetes kelsoensis*

Common Name: Oblivious tiger beetle  
Status: Species of Concern  
Scientific Name: *Cicindela latesignata obliviosa*

Common Name: Moestan blister beetle  
Status: Species of Concern  
Scientific Name: *Lytta moesta*

#### Group:Lichens

Common Name: [Unnamed] lichen  
Status: Species of Concern  
Scientific Name: *Texosporium sancti-jacobi*

Common Name: Splitting yarn lichen  
Status: Species of Concern  
Scientific Name: *Sulcaria isidiisera*

#### Group:Mammals

Common Name: Tipton kangaroo rat  
Status: Endangered  
Scientific Name: *Dipodomys nitratoides nitratoides*

Common Name: White-footed vole  
Status: Species of Concern  
Scientific Name: *Arborimus albipes*

Common Name: Buena Vista Lake ornate Shrew  
Status: Endangered  
Scientific Name: *Sorex ornatus relictus*

Common Name: Riparian woodrat (=San Joaquin Valley)  
Status: Endangered  
Scientific Name: *Neotoma fuscipes riparia*

Common Name: White-eared pocket mouse  
Status: Species of Concern  
Scientific Name: *Perognathus alticola alticola*

Common Name: San Nicolas Island fox  
Status: Species of Concern  
Scientific Name: *Urocyon littoralis dickeyi*

Common Name: Mountain beaver  
Status: Species of Concern  
Scientific Name: *Aplodontia rufa californica*

Common Name: Owens Valley California vole  
Status: Species of Concern  
Scientific Name: *Microtus californicus vallicola*

Common Name: Allen's big-eared bat  
Scientific Name: *Idionycteris phyllotis*



## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Status: Species of Concern

Common Name: California red tree vole  
Status: Species of Concern

Scientific Name: Arborimus pomo

Common Name: Salt marsh ornate shrew  
Status: Species of Concern

Scientific Name: Sorex ornatus salicornicus

Common Name: Yuma hispid cotton rat  
Status: Species of Concern

Scientific Name: Sigmodon hispidus eremicus

Common Name: Berkeley kangaroo rat  
Status: Species of Concern

Scientific Name: Dipodomys heermanni berkleyensis

Common Name: Point Reyes jumping mouse  
Status: Species of Concern

Scientific Name: Zapus trinotatus orarius

Common Name: Pacific Townsend's big-eared bat  
Status: Species of Concern

Scientific Name: Plecotus townsendii townsendii

Common Name: Greater western mastiff-bat  
Status: Species of Concern

Scientific Name: Eumops perotis californicus

Common Name: Pallid San Diego pocket mouse  
Status: Species of Concern

Scientific Name: Perognathus fallax pallidus

Common Name: Earthquake Merriam's kangaroo rat  
Status: Species of Concern

Scientific Name: Dipodomys merriami collinus

Common Name: Los Angeles little pocket mouse  
Status: Species of Concern

Scientific Name: Perognathus longimembris brevinasus

Common Name: Lodgepole chipmunk  
Status: Species of Concern

Scientific Name: Tamias speciosus speciosus

Common Name: Short-nosed kangaroo rat  
Status: Species of Concern

Scientific Name: Dipodomys nitratooides brevinasus

Common Name: Tulare grasshopper mouse  
Status: Species of Concern

Scientific Name: Onychomys torridus tularensis

Common Name: Mojave river vole  
Status: Species of Concern

Scientific Name: Microtus californicus mohavensis

Common Name: San Francisco dusky-footed woodrat  
Status: Species of Concern

Scientific Name: Neotoma fuscipes annectens

Common Name: San Diego black-tailed jackrabbit  
Status: Species of Concern

Scientific Name: Lepus californicus bennettii

Common Name: Guadalupe fur seal  
Status: Threatened

Scientific Name: Arctocephalus townsendi

Common Name: Dulzura California pocket mouse  
Status: Species of Concern

Scientific Name: Perognathus californicus femoralis

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Stephens' California vole Status: Species of Concern	Scientific Name: <i>Microtus californicus stephensi</i>
Common Name: Salt marsh vagrant shrew Status: Species of Concern	Scientific Name: <i>Sorex vagrans halicoetes</i>
Common Name: San Diego desert woodrat Status: Species of Concern	Scientific Name: <i>Neotoma lepida intermedia</i>
Common Name: Palm Springs little pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus longimembris bangsi</i>
Common Name: Pale Townsend's big-eared bat Status: Species of Concern	Scientific Name: <i>Plecotus townsendii pallescens</i>
Common Name: Occult little brown bat Status: Species of Concern	Scientific Name: <i>Myotis lucifugus occultus</i>
Common Name: California wolverine Status: Species of Concern	Scientific Name: <i>Gulo gulo luteus</i>
Common Name: San Bernardino northern flying squirrel Status: Under Review	Scientific Name: <i>Glaucomys sabrinus californicus</i>
Common Name: Tehachapi white-eared pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus alticola inexpectatus</i>
Common Name: Colorado River cotton rat Status: Species of Concern	Scientific Name: <i>Sigmodon arizonae plenus</i>
Common Name: Suisun ornate shrew Status: Species of Concern	Scientific Name: <i>Sorex ornatus sinuosus</i>
Common Name: Salinas pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus inornatus psammophilus</i>
Common Name: Southern grasshopper mouse Status: Species of Concern	Scientific Name: <i>Onychomys torridus ramona</i>
Common Name: Channel Islands spotted skunk Status: Species of Concern	Scientific Name: <i>Spilogale putorius amphiala</i>
Common Name: Yuma puma Status: Species of Concern	Scientific Name: <i>Felis concolor browni</i>
Common Name: Island fox Status: Status Undefined	Scientific Name: <i>Urocyon littoralis</i>
Common Name: Jacumba little pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus longimembris internationalis</i>
Common Name: Spotted bat Status: Species of Concern	Scientific Name: <i>Euderma maculatum</i>
Common Name: Point Reyes mountain beaver Status: Species of Concern	Scientific Name: <i>Aplodontia rufa phaea</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Monterey ornate shrew Status: Species of Concern	Scientific Name: <i>Sorex ornatus salarius</i>
Common Name: San Joaquin pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus inornatus</i>
Common Name: Northwestern San Diego pocket mouse Status: Species of Concern	Scientific Name: <i>Perognathus fallax fallax</i>
Common Name: Cave myotis Status: Species of Concern	Scientific Name: <i>Myotis velifer</i>
Common Name: California leaf-nosed bat Status: Species of Concern	Scientific Name: <i>Macrotus californicus</i>
Common Name: Sierra Nevada snowshoe hare Status: Species of Concern	Scientific Name: <i>Lepus americanus tahoensis</i>
Common Name: San Clemente deer mouse Status: Species of Concern	Scientific Name: <i>Peromyscus maniculatus clementis</i>
Common Name: Marysville California kangaroo rat Status: Species of Concern	Scientific Name: <i>Dipodomys californicus eximius</i>
Common Name: San Clemente Island fox Status: Species of Concern	Scientific Name: <i>Urocyon littoralis clementae</i>
Common Name: Merced kangaroo rat Status: Species of Concern	Scientific Name: <i>Dipodomys heermanni dixonii</i>
Common Name: Nelson's antelope ground squirrel Status: Species of Concern	Scientific Name: <i>Ammospermophilus nelsoni</i>
Common Name: Mexican long-tongued bat Status: Species of Concern	Scientific Name: <i>Choeronycteris mexicana</i>
Common Name: Alameda Island mole Status: Species of Concern	Scientific Name: <i>Scapanus latimanus parvus</i>
Common Name: Monterey dusky-footed woodrat Status: Species of Concern	Scientific Name: <i>Neotoma fuscipes luciana</i>
Common Name: Santa Catalina ornate shrew Status: Species of Concern	Scientific Name: <i>Sorex ornatus willetti</i>
Common Name: Riparian brush rabbit Status: Endangered	Scientific Name: <i>Sylvilagus bachmani riparius</i>

#### Group: Reptiles

Common Name: San Diego ringneck snake Status: Species of Concern	Scientific Name: <i>Diadophis punctatus similis</i>
Common Name: California horned lizard Status: Species of Concern	Scientific Name: <i>Phrynosoma coronatum frontale</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Coronado skink Status: Species of Concern	Scientific Name: <i>Eumeces skiltonianus interparietalis</i>
Common Name: Rosy boa Status: Species of Concern	Scientific Name: <i>Charina trivirgata</i>
Common Name: San Diego banded gecko Status: Species of Concern	Scientific Name: <i>Coleonyx variegatus abbotti</i>
Common Name: San Bernardino ringneck snake Status: Species of Concern	Scientific Name: <i>Diadophis punctatus modestus</i>
Common Name: Banded gila monster Status: Species of Concern	Scientific Name: <i>Heloderma suspectum cinctum</i>
Common Name: San Diego Mountain king snake Status: Species of Concern	Scientific Name: <i>Lampropeltis zonata pulchra</i>
Common Name: Panamint alligator lizard Status: Under Review	Scientific Name: <i>Elgaria panamintina</i>
Common Name: Two-striped garter snake Status: Species of Concern	Scientific Name: <i>Thamnophis hammondi</i>
Common Name: Santa Cruz Island gopher snake Status: Species of Concern	Scientific Name: <i>Pituophis melanoleucus pumilis</i>
Common Name: South coast garter snake Status: Species of Concern	Scientific Name: <i>Thamnophis sirtalis</i> ssp.
Common Name: Southwestern pond turtle Status: Species of Concern	Scientific Name: <i>Actinemys marmorata pallida</i>
Common Name: Northern red diamond rattlesnake Status: Species of Concern	Scientific Name: <i>Crotalus ruber ruber</i>
Common Name: Silvery legless lizard Status: Species of Concern	Scientific Name: <i>Anniella pulchra pulchra</i>
Common Name: Southern rubber boa Status: Under Review	Scientific Name: <i>Charina bottae umbratica</i>
Common Name: Chuckwalla Status: Species of Concern	Scientific Name: <i>Sauromalus ater</i>
Common Name: San Bernardino mountain king snake Status: Species of Concern	Scientific Name: <i>Lampropeltis zonata parvirubra</i>
Common Name: Coastal rosy boa Status: Species of Concern	Scientific Name: <i>Charina trivirgata roseofusca</i>
Common Name: Sierra night lizard Status: Species of Concern	Scientific Name: <i>Xantusia vigilis sierrae</i>
Common Name: Coastal western whiptail Status: Species of Concern	Scientific Name: <i>Cnemidophorus tigris multiscutatus</i>

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Orange-throated whiptail  
Status: Species of Concern  
Scientific Name: *Cnemidophorus hyperythrus*

Common Name: San Diego horned lizard  
Status: Species of Concern  
Scientific Name: *Phrynosoma coronatum blainvillii*

Common Name: Coast patch-nosed snake  
Status: Species of Concern  
Scientific Name: *Salvadora hexalepis virgultea*

Common Name: San Joaquin whipsnake  
Status: Species of Concern  
Scientific Name: *Masticophis flagellum ruddocki*

Common Name: Mojave fringe-toed Lizard  
Status: Status Undefined  
Scientific Name: *Uma scoparia*

Common Name: Barefoot gecko  
Status: Species of Concern  
Scientific Name: *Coleonyx switaki*

#### Group:Snails

Common Name: Peninsula Coast Range shoulderband  
Status: Species of Concern  
Scientific Name: *Helminthoglypta nickliniana awania*

Common Name: White desertsnaill  
Status: Species of Concern  
Scientific Name: *Eremarionta immaculata*

Common Name: Newcomb's littorine snail  
Status: Species of Concern  
Scientific Name: *Algamorda newcombiana*

Common Name: Owens springsnail  
Status: Species of Concern  
Scientific Name: *Pyrgulopsis owensensis*

Common Name: [Unnamed] snail  
Status: Species of Concern  
Scientific Name: *Valvata virens*

Common Name: Cockerell's striate disc  
Status: Species of Concern  
Scientific Name: *Discus shemeki cockerelli*

Common Name: Yates' tight coin  
Status: Species of Concern  
Scientific Name: *Ammonitella yatesii*

Common Name: San Clemente islandsnail  
Status: Species of Concern  
Scientific Name: *Micrarionta gabbii*

Common Name: Aardhals springsnail  
Status: Species of Concern  
Scientific Name: *Pyrgulopsis aardahli*

Common Name: Morongo desertsnaill  
Status: Species of Concern  
Scientific Name: *Eremarionta morongoana*

Common Name: Wongs springsnail  
Status: Species of Concern  
Scientific Name: *Pyrgulopsis wongi*

Common Name: Pomo bronze shoulderband  
Status: Species of Concern  
Scientific Name: *Helminthoglypta arrosa pomoensis*

## NATURAL AREAS MAP FINDINGS

### Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Grapevine Springs squat tryonia Status: Species of Concern	Scientific Name: Tryonia rowlandsi
Common Name: Victorville shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta mohaveana
Common Name: Bridges' Coast Range shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta nickliniana bridgesi
Common Name: Kern shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta callistoderma
Common Name: [Unnamed] islandsnail Status: Species of Concern	Scientific Name: Micrarionta rowelli bakerensis
Common Name: California McCoy snail islandsnail Status: Species of Concern	Scientific Name: Micrarionta rowelli mccoiana
Common Name: Badwater snail Status: Species of Concern	Scientific Name: Assiminea infima
Common Name: Mimic tryonia Status: Species of Concern	Scientific Name: Tryonia imitator
Common Name: Williams' bronze shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta arrosa williamsi
Common Name: Santa Barbara islandsnail Status: Species of Concern	Scientific Name: Micrarionta facta
Common Name: Hirsute sierra sideband Status: Species of Concern	Scientific Name: Monadenia mormonum hirsuta
Common Name: Yosemite mariposa sideband Status: Species of Concern	Scientific Name: Monadenia hillebrandi yosemitensis
Common Name: Thousand Palms desertsnaill Status: Species of Concern	Scientific Name: Eremarionta millepalmarum
Common Name: Button's Sierra sideband Status: Species of Concern	Scientific Name: Monadenia mormonum buttoni
Common Name: White Abalone Status: Endangered	Scientific Name: Haliotis sorenseni
Common Name: Grapevine Springs elongate tryonia Status: Species of Concern	Scientific Name: Tryonia margae
Common Name: Redwood shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta sequoicola consors
Common Name: Merced Canyon shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta allynsmithi
Common Name: Wintu sideband Status: Under Review	Scientific Name: Monadenia troglodytes ssp. wintu

# NATURAL AREAS MAP FINDINGS

## Federal Endangered Species from the U.S. Fish and Wildlife for CA State (Continued...)

Common Name: Globular pebblesnail Status: Under Review	Scientific Name: Fluminicola sph
Common Name: Fish Slough springsnail Status: Species of Concern	Scientific Name: Pyrgulopsis perturbata
Common Name: Santa Barbara shelled slug Status: Species of Concern	Scientific Name: Binneya notabilis
Common Name: Shasta sideband Status: Under Review	Scientific Name: Monadenia troglodytes troglodytes
Common Name: Robust tryonia Status: Species of Concern	Scientific Name: Tryonia robusta
Common Name: Peninsular Range shoulderband Status: Species of Concern	Scientific Name: Helminthoglypta traski coelata
Common Name: Catalina mountainsnail Status: Species of Concern	Scientific Name: Radiocentrum avalonense
Common Name: Keeled sideband Status: Species of Concern	Scientific Name: Monadenia circumcarinata
Common Name: San Nicolas islandsnail Status: Species of Concern	Scientific Name: Micrarionta feralis
Common Name: Pricklypear islandsnail Status: Species of Concern	Scientific Name: Micrarionta opuntia

**Map ID**  
**Direction**  
**Distance**  
**Distance (ft.)**

**EDR ID**  
**Database**

A1  
East  
0-1/8 mi  
335

CANAPA100097191  
CA Protected Areas

Holding ID:	88221
Unit Name:	California State Lands Commission
Public Access Level:	Open Access
Alternate Site Name:	Not Reported
Owning Agency:	California State Lands Commission
Agency Jurisdiction:	State
Agency Type:	State Agency
Public Access:	<a href="http://www.slc.ca.gov/">http://www.slc.ca.gov/</a>
Managing Agency:	California State Lands Commission
Holding Name:	California State Lands Commission
Special Use:	Not Reported
Year Acquired:	0
GAP Designation:	State Resource Management Area
Protection Rank:	Managed for multiple uses, subject to extractive (mining or logging)

# NATURAL AREAS MAP FINDINGS

URL: or OHV use.  
Not Reported

A2  
East  
0-1/8 mi  
335

Agency: California State Lands Commission  
Group: Other State Lands  
Level: State

CAGO10000059651  
CA Government Lands

3  
NNE  
0-1/8 mi  
632

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

CAESP00202713  
CA Endangered Species

4  
North  
1-2 mi  
7790

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

CAESP00202913  
CA Endangered Species

Common Name: burrowing owl  
Scientific Name: *Athene cunicularia*  
Global Rank: G4



## NATURAL AREAS MAP FINDINGS

State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1215

---

B5  
ENE  
1-2 mi  
8764

CAESP00203380  
CA Endangered Species

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

Common Name: burrowing owl  
Scientific Name: *Athene cunicularia*  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1216

---

B6  
ENE  
1-2 mi  
8767

CAESP00203382  
CA Endangered Species

Common Name: burrowing owl  
Scientific Name: *Athene cunicularia*  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1216

# NATURAL AREAS MAP FINDINGS

C7  
North  
1-2 mi  
8828

CAESP00202849  
CA Endangered Species

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

Common Name: burrowing owl  
Scientific Name: *Athene cucularia*  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1214

---

E8  
WNW  
1-2 mi  
8839

CANAPA100096273  
CA Protected Areas

Holding ID: 37924  
Unit Name: Imperial Wildlife Area  
Public Access Level: Open Access  
Alternate Site Name: Not Reported  
Owning Agency: California Department of Fish and Wildlife  
Agency Jurisdiction: State  
Agency Type: State Agency  
Public Access: <https://www.wildlife.ca.gov/>  
Managing Agency: California Department of Fish and Wildlife  
Holding Name: Imperial Wildlife Area  
Special Use: Not Reported  
Year Acquired: 0  
GAP Designation: State Conservation Area  
Protection Rank: Managed for biodiversity-disturbance events suppressed.  
URL: <https://www.wildlife.ca.gov/Lands/Places-to-Visit/Imperial-WA>

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E9  
WNW  
1-2 mi  
8839

CAGO10000059035  
CA Government Lands

# NATURAL AREAS MAP FINDINGS

Agency: California Department of Fish and Wildlife  
Group: CA Dept. of Fish and Wildlife  
Level: State

E10  
WNW  
1-2 mi  
8913

CANAPU000033814  
CA PCT Lands

Property Name: IMPERIAL WA  
Administrative Area: Not Reported  
Owner: CA Department of Fish and Game  
Manager: CA Department of Fish and Game  
Updated: Not Reported  
Data Source: CA Dept of Fish and Game  
Admin Level: STATE  
Assessor Recorded Date: 19-JUL-55

C11  
North  
1-2 mi  
8914

CAESP00202819  
CA Endangered Species

Common Name: burrowing owl  
Scientific Name: Athene cunicularia  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1214

12  
ENE  
1-2 mi  
9003

CAESP00203373  
CA Endangered Species

Common Name: razorback sucker  
Scientific Name: Xyrauchen texanus  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal

# NATURAL AREAS MAP FINDINGS

Element Occurrence #: 16

Common Name: burrowing owl  
Scientific Name: *Athene cucularia*  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1216

---

B13  
ENE  
1-2 mi  
9003

CAESP00203379  
CA Endangered Species

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

Common Name: razorback sucker  
Scientific Name: *Xyrauchen texanus*  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal  
Element Occurrence #: 16

Common Name: burrowing owl  
Scientific Name: *Athene cucularia*  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1216

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14  
ENE  
1-2 mi  
9004

CAESP00203008  
CA Endangered Species

## NATURAL AREAS MAP FINDINGS

Common Name: Sonoran desert toad  
Scientific Name: *Incilius alvarius*  
Global Rank: G5  
State Rank: SH  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1

Common Name: razorback sucker  
Scientific Name: *Xyrauchen texanus*  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal  
Element Occurrence #: 16

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15  
ENE  
1-2 mi  
9013

CAESP00202572  
CA Endangered Species

Common Name: razorback sucker  
Scientific Name: *Xyrauchen texanus*  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal  
Element Occurrence #: 16

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D16  
ENE  
1-2 mi  
9020

CAESP00202572  
CA Endangered Species

Common Name: razorback sucker  
Scientific Name: *Xyrauchen texanus*  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal

# NATURAL AREAS MAP FINDINGS

Element Occurrence #: 16

17  
NNW  
1-2 mi  
9261

CAESP00202553  
CA Endangered Species

Common Name: lowland (=Yavapai, San Sebastian & San Felipe) leopard frog  
Scientific Name: *Lithobates yavapaiensis*  
Global Rank: G4  
State Rank: SX  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 4

18  
WNW  
1-2 mi  
9636

CAESP00202812  
CA Endangered Species

Common Name: yellow warbler  
Scientific Name: *Dendroica petechia brewsteri*  
Global Rank: G5T3?  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 28

D19  
ENE  
1-2 mi  
10150

CAESP00203523  
CA Endangered Species

Common Name: razorback sucker  
Scientific Name: *Xyrauchen texanus*  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal  
Element Occurrence #: 16

## NATURAL AREAS MAP FINDINGS

Common Name: merlin  
Scientific Name: Falco columbarius  
Global Rank: G5  
State Rank: S3  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 23

D20  
ENE  
1-2 mi  
10170

CAESP00203539  
CA Endangered Species

Common Name: merlin  
Scientific Name: Falco columbarius  
Global Rank: G5  
State Rank: S3  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 23

Common Name: razorback sucker  
Scientific Name: Xyrauchen texanus  
Global Rank: G1  
State Rank: S1  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: Endangered  
State Listing Status: Endangered  
Element Type: Animal  
Element Occurrence #: 16

Common Name: burrowing owl  
Scientific Name: Athene cunicularia  
Global Rank: G4  
State Rank: S2  
CA Rare Plant Rank: Not Applicable  
Federal Listing Status: None  
State Listing Status: None  
Element Type: Animal  
Element Occurrence #: 1216

# Endangered Species Codes

**Global Imperilment Rank Codes - GRANK:** Priority rank (1-5) based on number of occurrences through element's range.

G1 - Critically imperiled globally because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G2 - Imperiled globally because of rarity (6-20 occurrences or few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extinction.

G3 - Vulnerable. Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range. (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range; in terms of occurrences, in the range of 21 - 100.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH - Possibly extinct or eliminated. Of historical occurrence throughout its range, i.e., formerly part of the established biota, with the expectation that it may be rediscovered (e.g., Bachman's Warbler). For historic and ecological communities, no likelihood for rediscovery, but possibility of restoration (e.g., American Chestnut Forest).

GNA - Not applicable to the element at a global level. Includes Hybrids, Invasive species, species of Domestic Origin, Cultural communities, and communities that have been managed.

GNR - Rank not assigned.

GU - Unrankable. Possibly in peril range-wide but status uncertain; more information is needed.

GX - Believed to be extinct throughout range (e.g., Passenger Pigeon) with virtually no likelihood that it will be rediscovered. For an ecological community, no restoration potential.

G#G# - Rank with a range. Used to show the range of uncertainty, will not skip more than 1 rank.

T-RANKS - T subranks are given to global ranks when a subspecies, variety, or race is considered at the state level. The subrank is made up of a "T" plus a number or letter (1, 2, 3, 4, 5, H, U, X) with the same ranking rules as a full species.

**State Rank Codes - SRANK:** Priority rank (1-5) based on number of occurrences through element's range.

S1 - Critically imperiled, Extremely rare. Typically 5 or fewer estimated occurrences in the state, or only a few remaining individuals, may be especially vulnerable to extirpation.

S2 - Imperiled, very rare. Typically between 5 and 20 estimated occurrences or with many individuals in fewer occurrences, often susceptible to becoming extirpated.

S3 - Vulnerable, rare to uncommon. Typically between 21 and 100 estimated occurrences, may have fewer occurrences but with large number of individuals in some populations, may be susceptible to large-scale disturbances.

S4 - Common, apparently secure under present conditions. Typically 100 or more estimated occurrences, but may be fewer with many large populations, may be restricted to only a portion of the state, usually not susceptible to immediate threats.

S5 - Demonstrably widespread, common, and secure in the state and essentially ineradicable under present conditions.

SA - Accidental.

SH - Historically known from the state, but not verified for an extended period, usually 15 years.

SU - Unrankable, not assessed. Possibly in peril in the state, but status uncertain, more information is needed. When possible, the most likely rank is assigned and a question mark is added to show uncertainty.

SX - Apparently extirpated from state.

SNR - Unranked. The state rank not yet assessed.

SRF - Reported falsely in the state.

SE - Exotic for local area.

SZ - Birds that migrate through the state but have no identifiable location.

S#S# - State level of G#G#.



# Endangered Species Codes, (Continued...)

## General Ranking Notes

Q - A "Q" in the global rank indicates the element's taxonomic classification as a species is a matter of conjecture among scientists.

A - Accidental - far outside usual range

C - Captive or Cultivated only

HYB - Element represents an interspecific hybrid, not a species

R - Reported but not confirmed

Z - Zero Occurrences

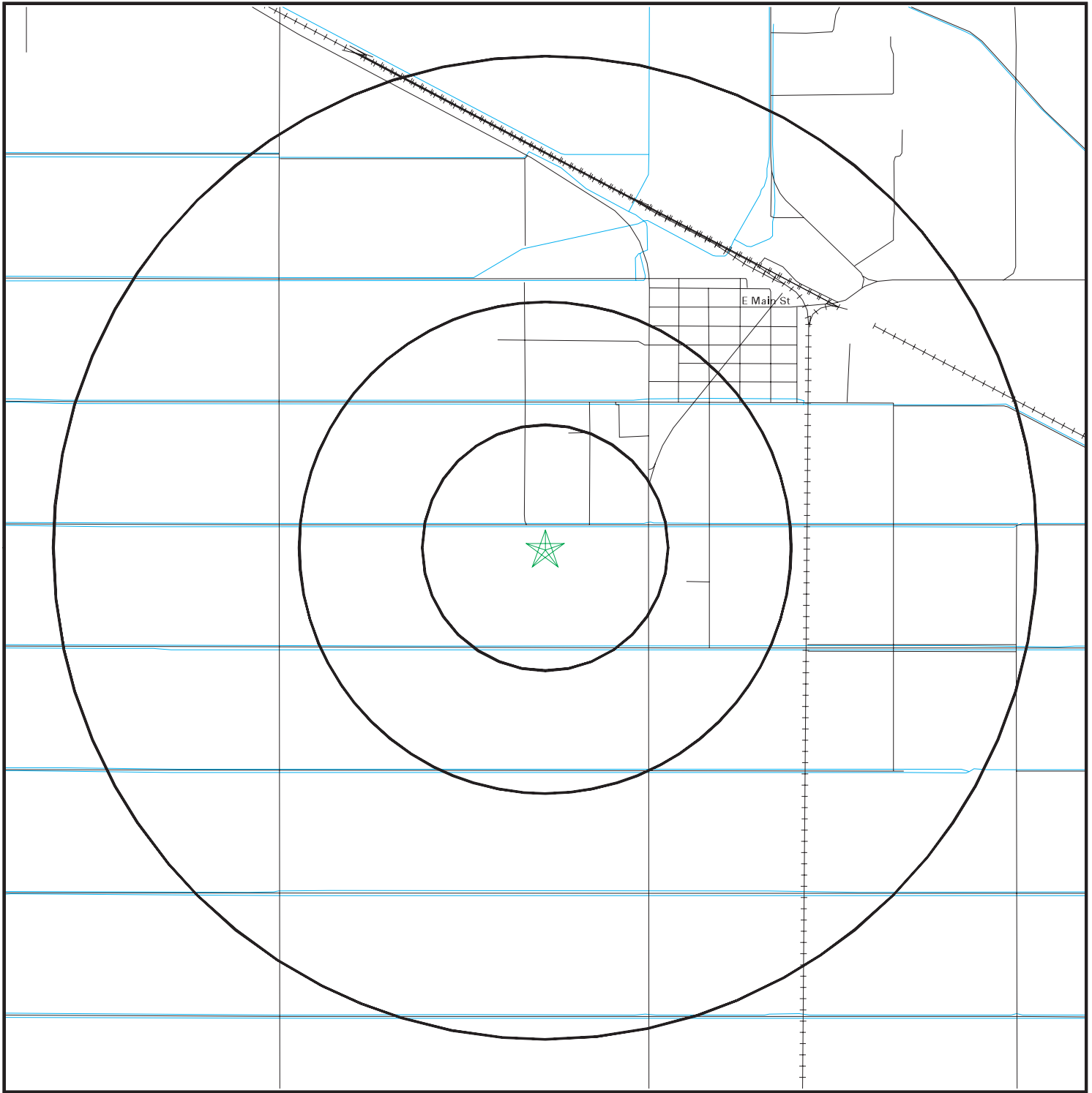
## Breeding Status Qualifiers (animals only)

B - Breeding population of the element

N - Nonbreeding population of the element

M - Migrant population

# Historic Sites Map



- ★ Target Property
- ◆ Historic Sites
- Streets
- County Boundary
- Waterways
- Water
- Federal Historic Areas
- State Historic Areas
- US Indian Reservations
- Scenic Trail



SITE NAME: Niland WWTP  
 ADDRESS: Alcott Rd  
 Calipatria CA 92233  
 LAT/LONG: 33.22601 / 115.526354

CLIENT: Ericsson-Grant Inc.  
 CONTACT: Kevin Grant  
 INQUIRY #: 6115956.1s  
 DATE: July 8, 2020

## HISTORIC SITES MAP FINDINGS

Map ID  
Direction  
Distance  
Distance (ft.)

EDR ID  
Database

---

No mapped sites were found in EDR's search of available government records within the search radius around the target property.

## UNMAPPABLE HISTORIC SITES

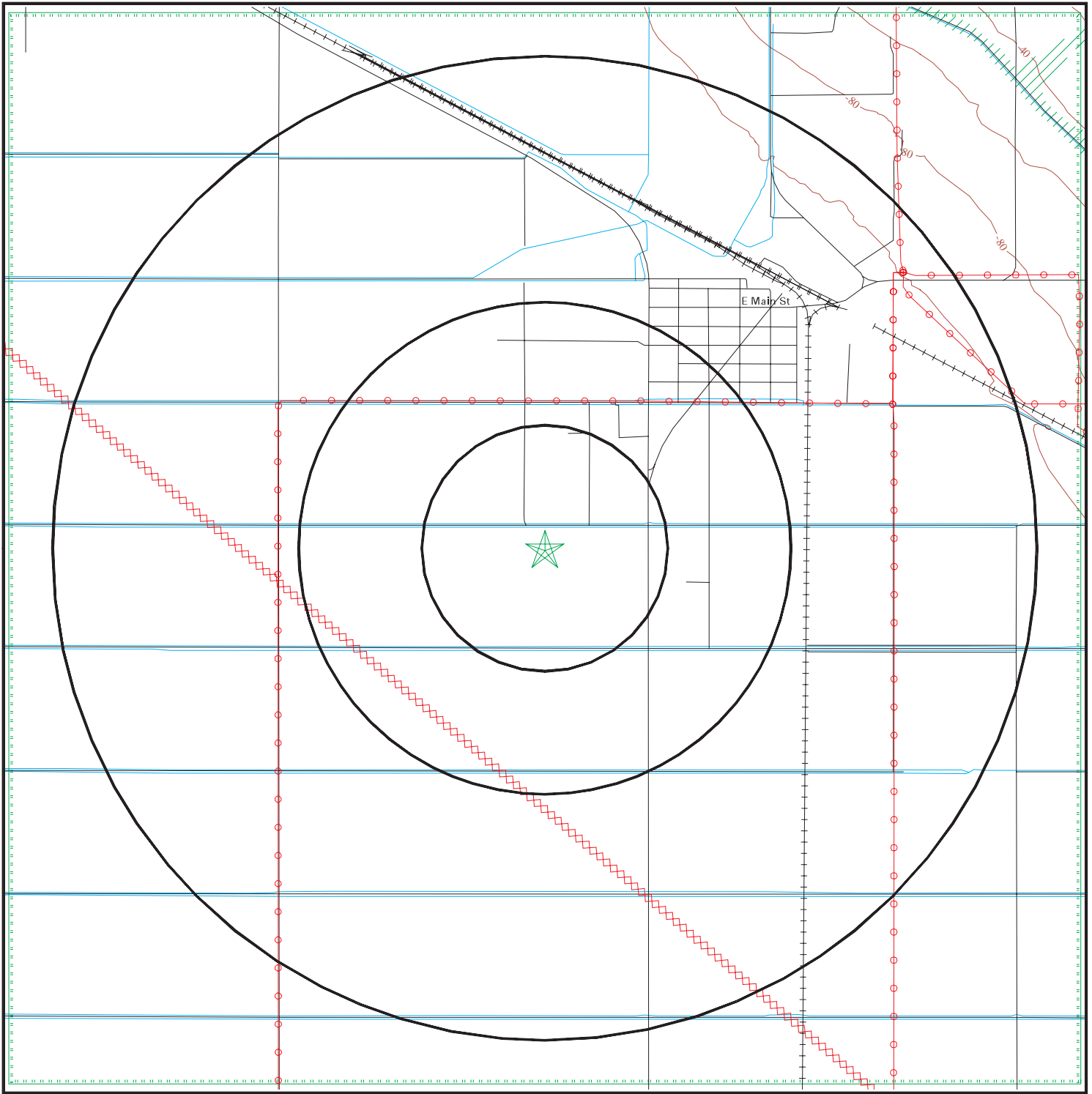
Due to poor or inadequate address information, the following sites were not mapped:

Status  
EDR ID  
Database

---

No unmapped sites were found in EDR's search of available government records.

# Flood Plain Map



- Major Roads
- Contour Lines
- Waterways
- County Boundary

- Power Lines
- Pipe Lines
- Fault Lines

- Water
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- Electronic FEMA data available
- Electronic FEMA data not available



SITE NAME: Niland WWTP  
 ADDRESS: Alcott Rd  
 Calipatria CA 92233  
 LAT/LONG: 33.22601 / 115.526354

CLIENT: Ericsson-Grant Inc.  
 CONTACT: Kevin Grant  
 INQUIRY #: 6115956.1s  
 DATE: July 8, 2020

# FLOOD PLAIN MAP FINDINGS

Source: FEMA FIRM Flood Data, FEMA Q3 Flood Data

**Flood Panel Number**                      **FEMA Source Type**

---

Flood Plain panel at target property:

06025C0725C                      (FEMA FIRM Flood data)

Additional Flood Plain panel(s) in search area:

06025C0425C                      (FEMA FIRM Flood data)

06025C0750C                      (FEMA FIRM Flood data)

Map ID

Direction

Distance

Distance (ft.)

Description

Database

---



## WETLANDS MAP FINDINGS

Source: Fish and Wildlife Service NWI data

NWI hardcopy map at target property: Niland  
 Additional NWI hardcopy map(s) in search area:  
     Wister  
     Iris

Map ID	Direction	Distance	Distance (ft.)	Code and Description*	Database
A1	West	0-1/8 mi	38	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.226009 / -115.526474	NWI
A2	NW	0-1/8 mi	66	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.226139 / -115.526505	NWI
A3	NNE	0-1/8 mi	125	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.226334 / -115.526215	NWI
A4	SSW	0-1/8 mi	143	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.225639 / -115.526497	NWI
A5	NE	0-1/8 mi	207	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.226372 / -115.525826	NWI
A6	North	0-1/8 mi	435	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227207 / -115.526352	NWI
A7	North	0-1/8 mi	505	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227398 / -115.526352	NWI
A8	North	0-1/8 mi	556	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.227539 / -115.526321	NWI

\*See Wetland Classification System for additional information.



## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
A9 NNE 1/8-1/4 mi 736	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.227898 / -115.525475	NWI
B10 North 1/8-1/4 mi 1139	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.229141 / -115.526512	NWI
B11 North 1/8-1/4 mi 1160	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.229198 / -115.526184	NWI
B12 NNE 1/8-1/4 mi 1317	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.229126 / -115.524155	NWI
C13 NE 1/4-1/2 mi 1481	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.229023 / -115.523087	NWI
C14 NE 1/4-1/2 mi 1520	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.229195 / -115.523125	NWI
D15 ENE 1/4-1/2 mi 1664	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227089 / -115.521057	NWI
B16 NNE 1/4-1/2 mi 1879	PEM1C [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded Lat/Lon: 33.231064 / -115.525085	NWI
D17 ENE 1/4-1/2 mi 2092	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.227562 / -115.519760	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
E18 South 1/4-1/2 mi 2097	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.220245 / -115.526360	NWI
F19 North 1/4-1/2 mi 2173	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.231937 / -115.525490	NWI
F20 North 1/4-1/2 mi 2192	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.231968 / -115.525284	NWI
E21 SSW 1/4-1/2 mi 2242	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.220009 / -115.528008	NWI
C22 NE 1/4-1/2 mi 2253	PEM1C [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded Lat/Lon: 33.231071 / -115.522102	NWI
F23 NNE 1/4-1/2 mi 2259	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.232090 / -115.524864	NWI
C24 NE 1/4-1/2 mi 2282	PEM1A [P] Palustrine [EM] Emergent [1] Persistent [A] Temporarily Flooded Lat/Lon: 33.231018 / -115.521858	NWI
D25 ENE 1/4-1/2 mi 2340	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227432 / -115.518890	NWI
D26 East 1/4-1/2 mi 2351	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227242 / -115.518799	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
F27 North 1/4-1/2 mi 2507	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.232853 / -115.527298	NWI
G28 NE 1/2-1 mi 3066	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.232971 / -115.520699	NWI
H29 North 1/2-1 mi 3074	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234463 / -115.526390	NWI
30 SE 1/2-1 mi 3104	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.220253 / -115.518860	NWI
H31 North 1/2-1 mi 3114	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234467 / -115.527924	NWI
H32 North 1/2-1 mi 3154	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234676 / -115.526367	NWI
H33 North 1/2-1 mi 3197	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234703 / -115.527885	NWI
G34 NNE 1/2-1 mi 3261	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.233799 / -115.521080	NWI
H35 North 1/2-1 mi 3271	PSS1C [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 33.234951 / -115.527496	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
G36 NNE 1/2-1 mi 3273	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.233517 / -115.520454	NWI
G37 NNE 1/2-1 mi 3308	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.233788 / -115.520744	NWI
I38 East 1/2-1 mi 3592	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227249 / -115.514702	NWI
I39 East 1/2-1 mi 3604	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227409 / -115.514679	NWI
H40 North 1/2-1 mi 3719	PSS1A [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded Lat/Lon: 33.236202 / -115.525398	NWI
G41 NE 1/2-1 mi 3823	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234447 / -115.518898	NWI
42 North 1/2-1 mi 3834	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.236420 / -115.524406	NWI
43 ESE 1/2-1 mi 4149	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.220211 / -115.514664	NWI
J44 NW 1/2-1 mi 4361	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234489 / -115.536423	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
J45 NW 1/2-1 mi 4416	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234688 / -115.536446	NWI
K46 East 1/2-1 mi 4625	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.226334 / -115.511230	NWI
L47 WSW 1/2-1 mi 4713	PUBFh [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [h] Diked/Impounded Lat/Lon: 33.219311 / -115.539543	NWI
M48 South 1/2-1 mi 4749	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212955 / -115.526344	NWI
L49 WSW 1/2-1 mi 4799	PUBFh [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [h] Diked/Impounded Lat/Lon: 33.218918 / -115.539581	NWI
M50 South 1/2-1 mi 4818	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212765 / -115.526337	NWI
K51 East 1/2-1 mi 4837	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227669 / -115.510651	NWI
M52 South 1/2-1 mi 4883	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212589 / -115.526520	NWI
M53 South 1/2-1 mi 4890	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212578 / -115.525841	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
M54 South 1/2-1 mi 4910	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212574 / -115.527885	NWI
M55 South 1/2-1 mi 4930	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212601 / -115.524025	NWI
M56 South 1/2-1 mi 4995	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.212326 / -115.527702	NWI
N57 SSW 1/2-1 mi 5020	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212570 / -115.530067	NWI
O58 SSE 1/2-1 mi 5045	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212589 / -115.522194	NWI
N59 SSW 1/2-1 mi 5138	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212566 / -115.531502	NWI
N60 SSW 1/2-1 mi 5243	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212585 / -115.532585	NWI
P61 SSE 1/2-1 mi 5267	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212971 / -115.518852	NWI
M62 South 1-2 mi 5302	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.211441 / -115.525833	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
P63 SSE 1-2 mi 5348	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212730 / -115.518837	NWI
O64 South 1-2 mi 5367	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.211411 / -115.523842	NWI
Q65 SSW 1-2 mi 5403	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212559 / -115.533844	NWI
R66 SW 1-2 mi 5437	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.214142 / -115.537163	NWI
Q67 SSW 1-2 mi 5615	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212555 / -115.535347	NWI
68 East 1-2 mi 5703	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227554 / -115.507790	NWI
S69 North 1-2 mi 5726	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.241749 / -115.526352	NWI
T70 West 1-2 mi 5755	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227245 / -115.545113	NWI
T71 West 1-2 mi 5786	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.227440 / -115.545197	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
Q72 SSW 1-2 mi 5798	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated  Lat/Lon: 33.212540 / -115.536484	NWI
73 NNW 1-2 mi 5977	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.241928 / -115.531174	NWI
U74 South 1-2 mi 6012	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated  Lat/Lon: 33.209553 / -115.528130	NWI
75 ESE 1-2 mi 6056	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.219959 / -115.507904	NWI
R76 SW 1-2 mi 6075	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated  Lat/Lon: 33.212624 / -115.538223	NWI
U77 South 1-2 mi 6110	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated  Lat/Lon: 33.209217 / -115.526421	NWI
78 WSW 1-2 mi 6114	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.220203 / -115.545105	NWI
U79 South 1-2 mi 6113	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated  Lat/Lon: 33.209213 / -115.525826	NWI
V80 SSW 1-2 mi 6129	L2USCx [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.211430 / -115.536392	NWI

\*See Wetland Classification System for additional information.



## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
W81 South 1-2 mi 6155	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.209209 / -115.523956	NWI
U82 South 1-2 mi 6220	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.208939 / -115.527481	NWI
W83 SSE 1-2 mi 6258	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.209179 / -115.522110	NWI
W84 South 1-2 mi 6316	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.208664 / -115.525513	NWI
X85 SW 1-2 mi 6389	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212601 / -115.539841	NWI
S86 North 1-2 mi 6503	R4SBJ [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded Lat/Lon: 33.243866 / -115.527298	NWI
Y87 WNW 1-2 mi 6510	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234505 / -115.545090	NWI
W88 SSE 1-2 mi 6514	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.208488 / -115.521973	NWI
Z89 ENE 1-2 mi 6533	R4SBJx [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded [x] Excavated Lat/Lon: 33.234699 / -115.507660	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
Y90 WNW 1-2 mi 6546	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234673 / -115.545120	NWI
Z91 ENE 1-2 mi 6551	PEM1Ah [P] Palustrine [EM] Emergent [1] Persistent [A] Temporarily Flooded [h] Diked/Impounded Lat/Lon: 33.234737 / -115.507607	NWI
Y92 WNW 1-2 mi 6600	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.234978 / -115.545113	NWI
X93 SW 1-2 mi 6609	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212597 / -115.540916	NWI
W94 South 1-2 mi 6640	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.207890 / -115.523758	NWI
W95 South 1-2 mi 6700	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.207939 / -115.522102	NWI
V96 SSW 1-2 mi 6903	L2UBFx [L] Lacustrine [2] Littoral [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.209286 / -115.537025	NWI
X97 SW 1-2 mi 6942	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212551 / -115.542435	NWI
98 NW 1-2 mi 7025	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.237186 / -115.545090	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AA99 West 1-2 mi 7077	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227749 / -115.549400	NWI
AA100 West 1-2 mi 7086	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.228012 / -115.549408	NWI
AA101 West 1-2 mi 7115	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.228680 / -115.549400	NWI
Y102 WNW 1-2 mi 7187	L2USCx [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.235001 / -115.547279	NWI
AA103 West 1-2 mi 7261	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227776 / -115.550003	NWI
AB104 South 1-2 mi 7368	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205757 / -115.526398	NWI
AC105 SE 1-2 mi 7380	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212959 / -115.507866	NWI
106 ENE 1-2 mi 7410	R4SBJ [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded Lat/Lon: 33.234749 / -115.504456	NWI
AC107 SE 1-2 mi 7422	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212715 / -115.507950	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AD108 SW 1-2 mi 7458	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212940 / -115.545143	NWI
AA109 West 1-2 mi 7461	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227745 / -115.550667	NWI
AB110 South 1-2 mi 7462	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205498 / -115.526337	NWI
111 SW 1-2 mi 7476	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.211163 / -115.543259	NWI
AE112 NNE 1-2 mi 7476	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.246075 / -115.521072	NWI
AD113 SW 1-2 mi 7483	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.212738 / -115.545044	NWI
114 NNE 1-2 mi 7663	R4SBJx [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded [x] Excavated Lat/Lon: 33.244980 / -115.515465	NWI
AF115 SSE 1-2 mi 7723	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205723 / -115.518906	NWI
116 NE 1-2 mi 7771	R4SBJ [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded Lat/Lon: 33.243652 / -115.512016	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AG117 WNW 1-2 mi 7810	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.234985 / -115.549553	NWI
AF118 SSE 1-2 mi 7810	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205498 / -115.518814	NWI
AA119 West 1-2 mi 7814	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.227703 / -115.551826	NWI
AH120 NW 1-2 mi 7820	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.240398 / -115.545349	NWI
AE121 NNE 1-2 mi 7882	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.246948 / -115.519737	NWI
AI122 North 1-2 mi 7897	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.247635 / -115.524155	NWI
AG123 WNW 1-2 mi 7974	PEM1Cx [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.236080 / -115.549507	NWI
AH124 NW 1-2 mi 8056	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.241085 / -115.545647	NWI
AG125 WNW 1-2 mi 8084	L2USCx [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.235867 / -115.550041	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AH126 NW 1-2 mi 8106	R2UBHx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.241749 / -115.545113	NWI
AH127 NW 1-2 mi 8155	R2UBHx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.241928 / -115.545128	NWI
AH128 NW 1-2 mi 8197	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.241089 / -115.546257	NWI
129 SW 1-2 mi 8246	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.208229 / -115.543076	NWI
130 NE 1-2 mi 8287	R4SBJ [R] Riverine [4] Intermittent [SB] Streambed [J] Intermittently Flooded Lat/Lon: 33.239994 / -115.504959	NWI
AJ131 WNW 1-2 mi 8358	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.238335 / -115.549423	NWI
132 North 1-2 mi 8366	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.248966 / -115.527855	NWI
AK133 West 1-2 mi 8435	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.227936 / -115.553841	NWI
AI134 North 1-2 mi 8437	R4SBAx [R] Riverine [4] Intermittent [SB] Streambed [A] Temporarily Flooded [x] Excavated Lat/Lon: 33.249176 / -115.525093	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AK135 West 1-2 mi 8467	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.227589 / -115.553970	NWI
AL136 West 1-2 mi 8470	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.224895 / -115.554016	NWI
AL137 West 1-2 mi 8470	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.223766 / -115.553925	NWI
AM138 NE 1-2 mi 8481	PUSAx [P] Palustrine [US] Unconsolidated Shore [A] Temporarily Flooded [x] Excavated  Lat/Lon: 33.242054 / -115.506226	NWI
AJ139 WNW 1-2 mi 8491	PEM1Cx [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.238972 / -115.549446	NWI
AM140 NE 1-2 mi 8533	PUSAx [P] Palustrine [US] Unconsolidated Shore [A] Temporarily Flooded [x] Excavated  Lat/Lon: 33.242634 / -115.506668	NWI
AN141 West 1-2 mi 8559	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.221695 / -115.553871	NWI
AN142 WSW 1-2 mi 8655	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.220680 / -115.553940	NWI
AO143 NNE 1-2 mi 8659	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated  Lat/Lon: 33.249012 / -115.519073	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AO144 NNE 1-2 mi 8695	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.249069 / -115.518883	NWI
AN145 WSW 1-2 mi 8835	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.220524 / -115.554497	NWI
146 NNW 1-2 mi 8929	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.249199 / -115.535896	NWI
AP147 NW 1-2 mi 8984	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.241158 / -115.549545	NWI
AK148 West 1-2 mi 9045	PEM1Cx [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.228111 / -115.555824	NWI
AQ149 WNW 1-2 mi 9047	L2USC [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.235092 / -115.553886	NWI
AN150 WSW 1-2 mi 9052	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.220562 / -115.555237	NWI
AK151 West 1-2 mi 9091	L2USC [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.228897 / -115.555885	NWI
AQ152 WNW 1-2 mi 9114	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.235008 / -115.554176	NWI

\*See Wetland Classification System for additional information.



## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AR153 WNW 1-2 mi 9233	L2USC [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.231083 / -115.555931	NWI
AP154 NW 1-2 mi 9232	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.242451 / -115.549347	NWI
AN155 WSW 1-2 mi 9261	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.220562 / -115.555939	NWI
156 SE 1-2 mi 9271	R4SBC [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.205715 / -115.508011	NWI
AS157 SW 1-2 mi 9325	R2UBF [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205769 / -115.545059	NWI
AQ158 WNW 1-2 mi 9335	L2USC [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.235020 / -115.554932	NWI
AR159 WNW 1-2 mi 9374	PEM1C [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.232971 / -115.555862	NWI
160 NNE 1-2 mi 9381	R4SBA [R] Riverine [4] Intermittent [SB] Streambed [A] Temporarily Flooded Lat/Lon: 33.249302 / -115.513199	NWI
AT161 WSW 1-2 mi 9426	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.220554 / -115.556488	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
AP162 NW 1-2 mi 9434	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.242435 / -115.550217	NWI
AS163 SW 1-2 mi 9453	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.205463 / -115.545273	NWI
AP164 NW 1-2 mi 9460	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.243366 / -115.549385	NWI
AP165 NW 1-2 mi 9559	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.242382 / -115.550804	NWI
AT166 WSW 1-2 mi 9633	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.220566 / -115.557182	NWI
AQ167 WNW 1-2 mi 9647	L2UBFx [L] Lacustrine [2] Littoral [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.235065 / -115.556000	NWI
AQ168 WNW 1-2 mi 9807	L2UBFx [L] Lacustrine [2] Littoral [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.235016 / -115.556580	NWI
169 West 1-2 mi 9810	PEM1Cx [P] Palustrine [EM] Emergent [1] Persistent [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.226925 / -115.558411	NWI
AU170 NW 1-2 mi 9924	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.245247 / -115.549362	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
171 NNE 1-2 mi 9943	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.252636 / -115.519028	NWI
172 NE 1-2 mi 9991	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.242405 / -115.500130	NWI
AV173 South 1-2 mi 10019	R2UBFx [R] Riverine [2] Lower Perennial [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.198467 / -115.526321	NWI
AV174 South 1-2 mi 10100	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.198246 / -115.526413	NWI
AU175 NW 1-2 mi 10230	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.245083 / -115.550941	NWI
AW176 WNW 1-2 mi 10248	PUBFx [P] Palustrine [UB] Unconsolidated Bottom [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.234962 / -115.558128	NWI
177 SSE 1-2 mi 10286	R4SBCx [R] Riverine [4] Intermittent [SB] Streambed [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.198460 / -115.518784	NWI
178 NW 1-2 mi 10328	L2USCx [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.242470 / -115.553864	NWI
AU179 NW 1-2 mi 10345	PUSCx [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.246227 / -115.550133	NWI

\*See Wetland Classification System for additional information.

## WETLANDS MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Code and Description*	Database
180 NW 1-2 mi 10347	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.249481 / -115.545448	NWI
AW181 WNW 1-2 mi 10361	L2USC [L] Lacustrine [2] Littoral [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.236671 / -115.557762	NWI
AU182 NW 1-2 mi 10420	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded [x] Excavated Lat/Lon: 33.245876 / -115.550896	NWI
183 WNW 1-2 mi 10500	PEM1Fx [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded [x] Excavated Lat/Lon: 33.237732 / -115.557732	NWI

\*See Wetland Classification System for additional information.

# WETLANDS CLASSIFICATION SYSTEM

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a sub-department of the U.S. Department of the Interior. In 1974, the U.S. Fish and Wildlife Service developed a criteria for wetland classification with four long range objectives:

- to describe ecological units that have certain homogeneous natural attributes,
- to arrange these units in a system that will aid decisions about resource management,
- to furnish units for inventory and mapping, and
- to provide uniformity in concepts and terminology throughout the U.S.

High altitude infrared photographs, soil maps, topographic maps and site visits are the methods used to gather data for the productions of these maps. In the infrared photos, wetlands appear as different colors and these wetlands are then classified by type. Using a hierarchical classification, the maps identify wetland and deepwater habitats according to:

- system
- subsystem
- class
- subclass
- modifiers

(as defined by Cowardin, et al. U.S. Fish and Wildlife Service FWS/OBS 79/31. 1979.)

The classification system consists of five systems:

1. marine
2. estuarine
3. riverine
4. lacustrine
5. palustrine

The marine system consists of deep water tidal habitats and adjacent tidal wetlands. The riverine system consists of all wetlands contained within a channel. The lacustrine systems includes all nontidal wetlands related to swamps, bogs & marshes. The estuarine system consists of deepwater tidal habitats and where ocean water is diluted by fresh water. The palustrine system includes nontidal wetlands dominated by trees and shrubs and where salinity is below .5% in tidal areas. All of these systems are divided in subsystems and then further divided into class.

National Wetland Inventory Maps are produced by transferring gathered data on a standard 7.5 minute U.S.G.S. topographic map. Approximately 52 square miles are covered on a National Wetland Inventory map at a scale of 1:24,000. Electronic data is compiled by digitizing these National Wetland Inventory Maps.

**SYSTEM**

**MARINE**

**SUBSYSTEM**

**1 - SUBTIDAL**

**2 - INTERTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom	AB-AQUATIC BED	RF-REEF	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm		1 Algal 3 Rooted Vascular 5 Unknown Submergent	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

**SYSTEM**

**E - ESTUARINE**

**SUBSYSTEM**

**1 - SUBTIDAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RF-REEF	OW-OPEN WATER / Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	

**SUBSYSTEM**

**2 - INTERTIDAL**

CLASS	AB-AQUATIC BED	RF-REEF	SB - STREAMBED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	SS-SCRUB SHRUB	FO-FORESTED
Subclass	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	2 Mollusk 3 Worm	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 Deciduous 7 Evergreen

**SYSTEM**

**R - RIVERINE**

**SUBSYSTEM**

**1 - TIDAL      2 - LOWER PERENNIAL      3 - UPPER PERENNIAL      4 - INTERMITTENT      5 - UNKNOWN PERENNIAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	*SB-STREAMBED	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	**EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

\* STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM.  
 \*\*EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS.

**SYSTEM**

**L - LACUSTRINE**

**SUBSYSTEM**

**1 - LIMNETIC**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	

**SUBSYSTEM**

**2 - LITTORAL**

CLASS	RB-ROCK BOTTOM	UB-UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	RS-ROCKY SHORE	US-UNCONSOLIDATED SHORE	EM-EMERGENT	OW-OPEN WATER/ Unknown Bottom
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

**SUBSYSTEM**

**P - PALUSTRINE**

CLASS	RB--ROCK BOTTOM	UB--UNCONSOLIDATED BOTTOM	AB-AQUATIC BED	US--UNCONSOLIDATED SHORE	ML--MOSS- LICHEN	EM--EMERGENT	SS--SCRUB-SHRUB	FO--FORESTED	OW-OPEN WATER/ Unknown
Subclass	1 Bedrock 2 Rubble 3 Mud 4 Organic	1 Cobble-Gravel 2 Sand	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown 6 Unknown Surface	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved 2 Needle-Leaved 3 Broad-Leaved 4 Needle-Leaved 5 Dead 6 Deciduous 7 Evergreen	1 Broad-Leaved 2 Needle-Leaved 3 Broad-Leaved 4 Needle-Leaved 5 Dead 6 Deciduous 7 Evergreen	

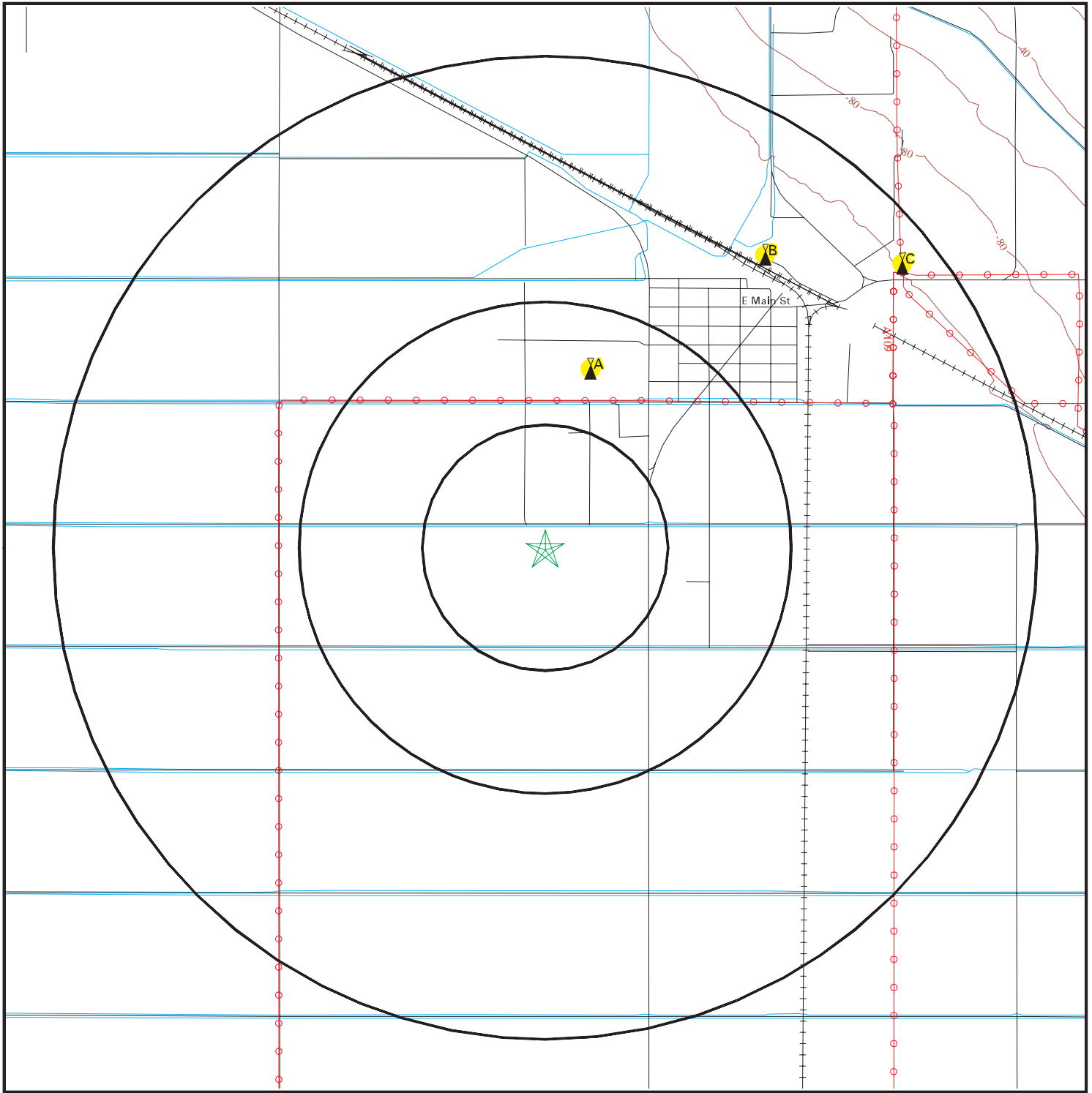
**MODIFIERS**



In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME				WATER CHEMISTRY			SOIL	SPECIAL MODIFIERS
Non-Tidal	Tidal	Coastal Halinity	Inland Salinity	pH	all Fresh Water			
A Temporarily Flooded	H Permanently Flooded	K Artificially Flooded	*S Temporary-Tidal		1 Hyperhaline	7 Hypersaline	g Organic	b Beaver
B Saturated	J Intermittently Flooded	L Subtidal	*R Seasonal-Tidal		2 Euhaline	8 Eusaline	n Mineral	d Partially Drained/Ditched
C Seasonally Flooded	K Artificially Flooded	M Irregularly Exposed	*T Semipermanent -Tidal		3 Mixohaline (Brackish)	9 Mixosaline	a Acid	f Farmed
D Seasonally Flooded/ Well Drained	W Intermittently Flooded/Temporary	N Regularly Flooded	V Permanent -Tidal		4 Polyhaline	0 Fresh	t Circumneutral	h Diked/Impounded
E Seasonally Flooded/ Saturated	Y Saturated/Semipermanent/ Seasonal	P Irregularly Flooded	U Unknown		5 Mesohaline		i Alkaline	r Artificial Substrate
F Semipermanently Flooded	Z Intermittently Exposed/Permanent	*These water regimes are only used in tidally influenced, freshwater systems.			6 Oligohaline			s Spoil
G Intermittently Exposed	U Unknown				0 Fresh			x Excavated



# FCC & FAA Sites Map



-  Streets
-  Contour Lines
-  County Boundary
-  Waterways
-  Power Lines
-  Water
-  Sites



SITE NAME: Niland WWTP  
 ADDRESS: Alcott Rd  
 Calipatria CA 92233  
 LAT/LONG: 33.22601 / 115.526354

CLIENT: Ericsson-Grant Inc.  
 CONTACT: Kevin Grant  
 INQUIRY #: 6115956.1s  
 DATE: July 8, 2020

# FCC & FAA SITES MAP FINDINGS TOWERS

**Map ID**  
**Direction**  
**Distance**  
**Distance (ft.)**

**EDR ID**  
**Database**

A1  
 NNE  
 1/2-1 mi  
 3957

DOF161200025879  
 FAA DOF

Obstacle #: 06-020099  
 Obstacle Type: TOWER  
 Quantity: 1  
 Ft Above Ground: 200  
 Ft Above Sea Level: 42  
 Verification Status: Verified  
 Lighting: None  
 Horizontal Accuracy: +/- 50 ft  
 Vertical Accuracy: +/- 20 ft  
 Markings: None  
 Action: Change  
 Action Date: 2009308

A2  
 NNE  
 1/2-1 mi  
 3972

ANT130000080523  
 ANTREG

Registration #: 1235434  
 File #: A0590925  
 Issue Date: 4/11/2008  
 Entity: SBA Towers II LLC  
 Height: 60.7  
 Address: 8031 Hwy 111 (CA105112-A)  
 FAA Study: 2008-AWP-1883-OE  
 FAA Circular: Not Reported  
 License ID: L01211381  
 Contact Name: Edward G. Roach  
 Contact Address: 5900 Broken Sound Pkwy NW  
 Contact City: Boca Raton  
 Contact State: FL  
 Contact Zip: 33487  
 ASR Search: <http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp>

This record is for a license, and it may or may not indicate a site which has been built.

## FCC & FAA SITES MAP FINDINGS TOWERS

Map ID  
Direction  
Distance  
Distance (ft.)

EDR ID  
Database

B3  
NE  
1-2 mi  
7860

DOF161200025884  
FAA DOF

Obstacle #: 06-000365  
Obstacle Type: TOWER  
Quantity: 1  
Ft Above Ground: 260  
Ft Above Sea Level: 140  
Verification Status: Verified  
Lighting: Medium Intensity White Strobe  
Horizontal Accuracy: +/- 20 ft  
Vertical Accuracy: +/- 50 ft  
Markings: None  
Action: Change  
Action Date: 2012088

B4  
NE  
1-2 mi  
7867

ANT130000010060  
ANTREG

Registration #: 1013320  
File #: A0759164  
Issue Date: 3/26/2012  
Entity: UNION PACIFIC RAILROAD COMPANY  
Height: 79.2  
Address: 6M-W BLDG SP YD  
FAA Study: 2012-AWP-2191-OE  
FAA Circular: 70/7460-1K  
License ID: L00005111  
Contact Name: BRAD G. ZIELIE  
Contact Address: 1400 DOUGLAS ST. STOP 0650  
Contact City: OMAHA  
Contact State: NE  
Contact Zip: 68179  
ASR Search: <http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp>

This record is for a license, and it may or may not indicate a site which has been built.

# FCC & FAA SITES MAP FINDINGS TOWERS

Map ID  
Direction  
Distance  
Distance (ft.)

EDR ID  
Database

C5  
NE  
1-2 mi  
9770

CELL16100003566  
CELLULAR

Call Sign: KNKN269  
Location #: 16  
Address: Niland: BEAL RD 1 MI E  
City: NILAND  
Structure Type: TOWER  
Ground Elevation: -30.5  
Overall Height: 60

This record is for a license, and it may or may not indicate a site which has been built.

C6  
NE  
1-2 mi  
9770

CELL16100001710  
CELLULAR

Call Sign: KNKN205  
Location #: 10  
Address: (Niland) BEAL RD 1 MI E  
City: NILAND  
Structure Type: LTOWER  
Ground Elevation: -30.5  
Overall Height: 60

This record is for a license, and it may or may not indicate a site which has been built.

# FCC & FAA SITES MAP FINDINGS TOWERS

**Map ID**  
**Direction**  
**Distance**  
**Distance (ft.)**

**EDR ID**  
**Database**

C7  
NE  
1-2 mi  
9775

ANT130000012197  
ANTREG

Registration #: 1016231  
File #: A0019456  
Issue Date: 4/22/1997  
Entity: IMPERIAL IRRIGATION DISTRICT  
Height: 56  
Address: BEAL RD 1 MI E  
FAA Study: 94-AWP-0892-OE  
FAA Circular: Not Reported  
License ID: Not Reported  
Contact Name: CHUCK SCROGGINS  
Contact Address: 333 E BARIONI BLVD  
Contact City: IMPERIAL  
Contact State: CA  
Contact Zip: 92251  
ASR Search: <http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp>

This record is for a license, and it may or may not indicate a site which has been built.

C8  
NE  
1-2 mi  
9839

DOF161200025883  
FAA DOF

Obstacle #: 06-002321  
Obstacle Type: TOWER  
Quantity: 1  
Ft Above Ground: 198  
Ft Above Sea Level: 98  
Verification Status: Unverified  
Lighting: None  
Horizontal Accuracy: +/- 250 ft  
Vertical Accuracy: +/- 50 ft  
Markings: None  
Action: Change  
Action Date: 2014124

# FCC & FAA SITES MAP FINDINGS TOWERS

Map ID  
Direction  
Distance  
Distance (ft.)

EDR ID  
Database

C9  
NE  
1-2 mi  
9843

ANT130000031909  
ANTREG

Registration #: 1041023  
File #: A0048309  
Issue Date: 3/17/1998  
Entity: SOUTHERN CELLULAR, INC. DBA = RAMCELL OF CALIFORNIA  
Height: 57.3  
Address: 1 MILE NE  
FAA Study: Not Reported  
FAA Circular: Not Reported  
License ID: Not Reported  
Contact Name: JILL D. RAMSEY  
Contact Address: 6915 HARRODSBURG ROAD  
Contact City: NICHOLASVILLE  
Contact State: KY  
Contact Zip: 40356  
ASR Search: <http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp>

This record is for a license, and it may or may not indicate a site which has been built.

# FCC & FAA SITES MAP FINDINGS AIRPORTS

EDR ID  
Database

---

No Sites Reported.

# FCC & FAA SITES MAP FINDINGS

## POWERLINES

EDR ID  
Database

4940  
POWERLINES

Voltage: 60  
Range: Yes  
Hi voltage: 92  
Volt cat: 0-69 kV  
Type: Alternating current  
Status: Active  
Corridor: Single line  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: 3.8151263000000002

64646  
POWERLINES

Voltage: 60  
Range: Yes  
Hi voltage: 92  
Volt cat: 0-69 kV  
Type: Alternating current  
Status: Active  
Corridor: Single line  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: 5.5124653600000002

28767  
POWERLINES

Voltage: 110  
Range: Yes  
Hi voltage: 161  
Volt cat: 70-138 kV  
Type: Alternating current



# FCC & FAA SITES MAP FINDINGS

## POWERLINES

EDR ID  
Database

---

Status: Active  
Corridor: Single line  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: 6.2630496600000001

---

111856  
POWERLINES

Voltage: 60  
Range: Yes  
Hi voltage: 92  
Volt cat: 0-69 kV  
Type: Alternating current  
Status: Active  
Corridor: Multiple lines  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: .59894745999999999

---

5631  
POWERLINES

Voltage: 60  
Range: Yes  
Hi voltage: 92  
Volt cat: 0-69 kV  
Type: Alternating current  
Status: Active  
Corridor: Multiple lines  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA

# FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID  
Database

---

Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: .5989474599999999

---

28306  
POWERLINES

Voltage: 110  
Range: Yes  
Hi voltage: 161  
Volt cat: 70-138 kV  
Type: Alternating current  
Status: Active  
Corridor: Single line  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: 51.275699879999998

---

108503  
POWERLINES

Voltage: 110  
Range: Yes  
Hi voltage: 161  
Volt cat: 70-138 kV  
Type: Alternating current  
Status: Active  
Corridor: Single line  
Owner: Imperial Irrigation District  
Owner id: IIDCA  
Num owners: Single Owner  
Operator: Imperial Irrigation District  
Operator id: IIDCA  
Last owner: Not Reported  
Last own id: Not Reported  
Last oper: Not Reported  
Last oper id: Not Reported  
Mileage: 2.52917448

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Various Federal laws and executive orders address specific environmental concerns. NEPA requires the responsible offices to integrate to the greatest practical extent the applicable procedures required by these laws and executive orders. EDR provides key contacts at agencies charged with implementing these laws and executive orders to supplement the information contained in this report.

### **NATURAL AREAS**

#### **Wilderness Areas**

##### Government Records Searched in This Report

##### FED\_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

##### US NWP: National Wilderness Preservation System

This map layer consists of National Wilderness Preservation System areas of 320 acres or more, in the United States, Puerto Rico, and the U.S. Virgin Islands. Some established wilderness areas which are larger than 320 acres are not included in this map layer because their boundaries were not available from the owning or administering agency.

Source: U.S. Geological Survey.

Telephone: 888-275-8747

##### Federal Contacts for Additional Information

##### National Park Service, Pacific West Region

600 Harrison Street, Suite 600

San Francisco, CA 94107

415-427-1300

##### USDA Forest Service, Pacific Southwest

630 Sansome Street

San Francisco, CA 94111

415-705-2557

##### BLM - California State Office

2800 Cottage Way, Room W-1834

Sacramento, CA 95825-1886

916-978-4400

##### Fish & Wildlife Service, Fish & Wildlife Region 8

2800 Cottage Way W-2606

Sacramento, CA 95825

916-414-6464

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### **Wildlife Preserves, Sanctuaries and Refuges**

#### Government Records Searched in This Report

##### **FED\_LAND: Federal Lands**

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

##### **CA Conservation Easement: Conservation Easement Database**

The California Conservation Easement Database (CCED) contains GIS data for conservation and open space easements for public and private property.

Source: GreenInfo Network.

Telephone: 510-350-8700

##### **CA Government Land: CA Government Owned Land**

Statewide GIS layer of land ownership, compiled from multiple data sources and snapped to county parcels.

Source: Cal Fire.

Telephone: 916-653-5123

##### **CA PCT Lands: CA Public, Conservation and Trust Lands**

A 1:100,000 polygon features class representing public, conservation and trust land ownership in the state of California. Developed for the California Resources Agency Legacy Project, this dataset depicts ownership features as submitted by major public, trust, and non-profit groups in the state.

Source: California Resources Agency.

Telephone: 510-653-1369

##### **CA Protected Areas: Protected Areas Database**

The California Protected Areas Database (CPAD) contains GIS data about lands that are owned in fee and protected for open space purposes by over 1,000 public agencies or non-profit organizations.

Source: GreenInfo Network.

Telephone: 510-350-8700

##### **CA ACEC: Areas of Critical Environmental Concern**

BLM Areas of Critical Environmental Concern in California

Source: Bureau of Land Management.

Telephone: 916-978-4400

##### **US ACEC: Areas of Critical Environmental Concern Designated Polygons**

The designated ACECs are "areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems of processes, or to protect life and safety from natural hazards

Source: Bureau of Land Management.

Telephone: 202-912-7352

##### **US Critical Water Habitat: US Critical Water Habitat**

When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S.

Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act.

Source: US Fish & Wildlife Services.

Telephone: 970-226-9468

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

US Proclamation Boundaries: US Proclamation Boundaries  
Approved, Proclamation or Extent Boundary  
Source: USGS.  
Telephone: 208-301-8288

US Scenic River: National Wild and Scenic River System  
National Wild and Scenic Rivers System  
Source: USGS National Atlas and the Interagency Wild and Scenic River Coordinating Council.  
Telephone: 509-546-8333

US NCED: National Conservation Easement Database  
NCED shows a comprehensive picture of privately owned conservation easement lands in the U.S. The NCED will allow better strategic planning for conservation and development by merging data on land protection with biodiversity and resources, improving ecological and economic plans and investments.  
Source: U.S Endowment for Forestry and Communities.  
Telephone: 202-621-1647

US Critical Land Habitat: US Critical Land Habitat  
When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S. Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act.  
Source: US Fish & Wildlife Services.  
Telephone: 970-226-9468

Federal Contacts for Additional Information  
Fish & Wildlife Service, Fish & Wildlife Region 8  
2800 Cottage Way W-2606  
Sacramento, CA 95825  
916-414-6464

State Contacts for Additional Information  
Department of Fish and Wildlife 916-653-7667

### **Wild and scenic rivers**

#### Government Records Searched in This Report

##### FED\_LAND: Federal Lands

Source: USGS

Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments
- Wildlife Sanctuaries, Preserves, Refuges
- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information  
Fish & Wildlife Service, Fish & Wildlife Region 8  
2800 Cottage Way W-2606  
Sacramento, CA 95825  
916-414-6464

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### Endangered Species

#### Government Records Searched in This Report

CA Endangered Species: Natural Diversity Database

Source: Dept. of Fish and Game.

Telephone: 916-324-3812

CA Endangered Species: California Natural Diversity Database

The California Natural Diversity Database (CNDDB) provides location and status information for the California most imperiled species.

Source: Department of Fish and Wildlife.

Telephone: 916-322-2493

Federal Endangered Species by County: Threatened and Endangered Species Listing

Endangered, Threatened, Emergency Listing (Endangered), Emergency Listing (Threatened), Experimental Population (Essential), Experimental Population (Non-Essential), Similarity of Appearance (Endangered), Similarity of Appearance (Threatened).

Source: US Fish and Wildlife Services.

Telephone: 800-344-9453

#### Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 8

2800 Cottage Way W-2606

Sacramento, CA 95825

916-414-6464

#### State Contacts for Additional Information

Natural Heritage Program, Dept. of Fish & Game 916-322-2493

### LANDMARKS, HISTORICAL, AND ARCHEOLOGICAL SITES

#### Historic Places

##### Government Records Searched in This Report

National Register of Historic Places:

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. These contribute to an understanding of the historical and cultural foundations of the nation.

The National Register includes:

- All prehistoric and historic units of the National Park System;
- National Historic Landmarks, which are properties recognized by the Secretary of the Interior as possessing national significance; and
- Properties significant in American, state, or local prehistory and history that have been nominated by State Historic Preservation Officers, federal agencies, and others, and have been approved for listing by the National Park Service.

Date of Government Version: 07/19/2015

CA Historic Landmarks: CA Historical Landmarks

Historical Landmarks are sites, buildings, features or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value

Source: Office of Historic Preservation.

Telephone: 916-653-6624

Potomac Heritage National Scenic Trail: Potomac Heritage National Scenic Trail

Source: Potomac Heritage NST Office.

Telephone: 304-535-4014

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Natchez Trace National Scenic Trail: Natchez Trace National Scenic Trail

Source: Natchez Trace Parkway.

Telephone: 800-305-7417

Indian Reservations: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Source: USGS.

Telephone: 202-208-3710

US Trails: US Trails

This dataset contains a baseline inventory and condition assessment of all non-motorized trails on U.S. Fish and Wildlife Service lands as part of the National Trails Inventory Program conducted by the US Dept. of Transportation, Federal Highway Administration, Federal Lands Highway Division.

Source: U.S. Fish and Wildlife.

Telephone: 703-358-2205

### Federal Contacts for Additional Information

Park Service; Advisory Council on Historic Preservation

1849 C Street NW

Washington, DC 20240

Phone: (202) 208-6843

### State Contacts for Additional Information

Office of Historic Preservation, Ept. Of Parks & Recreation 916-653-6624

### **Indian Religious Sites**

#### Government Records Searched in This Report

Indian Reservations:

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Source: USGS

Phone: 888-275-8747

Date of Government Version: 12/31/2005

### Federal Contacts for Additional Information

Department of the Interior- Bureau of Indian Affairs

Office of Public Affairs

1849 C Street, NW

Washington, DC 20240-0001

Office: 202-208-3711

Fax: 202-501-1516

National Association of Tribal Historic Preservation Officers

1411 K Street NW, Suite 700

Washington, DC 20005

Phone: 202-628-8476

Fax: 202-628-2241

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### State Contacts for Additional Information

A listing of local Tribal Leaders and Bureau of Indian Affairs Representatives can be found at:  
<http://www.doi.gov/bia/areas/agency.html>

Phoenix Area Office, Bureau of Indian Affairs  
One North First Street P.O. Box 10  
Phoenix, AZ 85001  
602-379-6600

Sacramento Area Office, Bureau of Indian Affairs  
2800 Cottage Way  
Sacramento, CA 95825  
916-979-2600

Cultural Division, Yuork Tribe  
1034 6th Street  
Eureka, CA 95501

### **Scenic Trails**

#### State Contacts for Additional Information

Pacific Crest Trail Association  
5325 Elkhorn Boulevard, #256  
Sacramento, California 95842  
916-349-2109

### **FLOOD PLAIN, WETLANDS AND COASTAL ZONE**

#### **Flood Plain Management**

##### Government Records Searched in This Report

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts Special Flood Hazard Areas (1%) and 0.2% Annual Chance of Flood Hazard as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Phone: 877-336-2627

Date of Government Version: 2015, 2003

#### Federal Contacts for Additional Information

Federal Emergency Management Agency 877-3362-627

#### State Contacts for Additional Information

Office of Emergency Services 916-262-1843



## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### **Wetlands Protection**

#### Government Records Searched in This Report

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010, and 2015 from the U.S. Fish and Wildlife Service.

Source: U.S. Fish and Wildlife Service.

Phone: 608-238-9333

Date of Government Version: 05/28/2015

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

#### Federal Contacts for Additional Information

Fish & Wildlife Service 813-570-5412

#### State Contacts for Additional Information

Department of Fish and Wildlife 916-653-7667

### **Coastal Zone Management**

#### Government Records Searched in This Report

CAMA Management Areas

Dept. of Env., Health & Natural Resources

919-733-2293

#### Federal Contacts for Additional Information

Office of Ocean and Coastal Resource Management

N/ORM, SSMC4

1305 East-West Highway

Silver Spring, Maryland 20910

301-713-3102

#### State Contacts for Additional Information

California Coastal Commission 415-904-5200

#### Government Records Searched in This Report

CA Coastline Information

Department of Fish and Game

831-649-7143

### **FCC & FAA SITES MAP**

For NEPA actions that come under the authority of the FCC, the FCC requires evaluation of Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

#### Government Records Searched in This Report

##### **Cellular**

Federal Communications Commission

445 12th Street, SW

Washington, DC 20554

888-225-5322

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### **Antenna Structure Registration**

Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554  
888-225-5322

### **AM Antenna**

Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554  
888-225-5322

### **FM Antenna**

Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554  
888-225-5322

### **FAA Digital Obstacle File**

Federal Aviation Administration (FAA)  
1305 East-West Highway, Station 5631  
Silver Spring, MD 20910-3281  
Telephone: 301-713-2817

Describes known obstacles of interest to aviation users in the US. Used by the Federal Aviation Administration (FAA) and the National Oceanic and Atmospheric Administration to manage the National Airspace System.

### **Airport Landing Facilities**

Federal Aviation Administration  
Telephone (800) 457-6656  
Private and public use landing facilities.

### **Electric Power Transmission Line Data**

PennWell Corporation

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### **Excessive Radio Frequency Emission**

For NEPA actions that come under the authority of the FCC, Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the determination of whether the particular facility, operation or transmitter would cause human exposure to levels of radio frequency in excess of certain limits.

### Federal Contacts for Additional Information

Office of Engineering and Technology  
Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554  
Phone: 202-418-2470

## KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

### OTHER CONTACT SOURCES

#### **NEPA Single Point of Contact**

State Contacts for Additional Information  
Grants Coordination  
State Clearinghouse  
P.O. Box 3044  
Room 222  
Sacramento, CA 95812-3044  
916-445-0613

### STREET AND ADDRESS INFORMATION

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**ATTACHMENT B**

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**NEPA ASSIST TOOL**

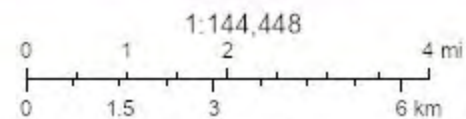
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# Distance to Nearest Airport



August 9, 2023

-  Search Result (point)
-  Airport Points



California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA.

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# ATTACHMENT C

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## USFW COASTAL BARRIER RESOURCES

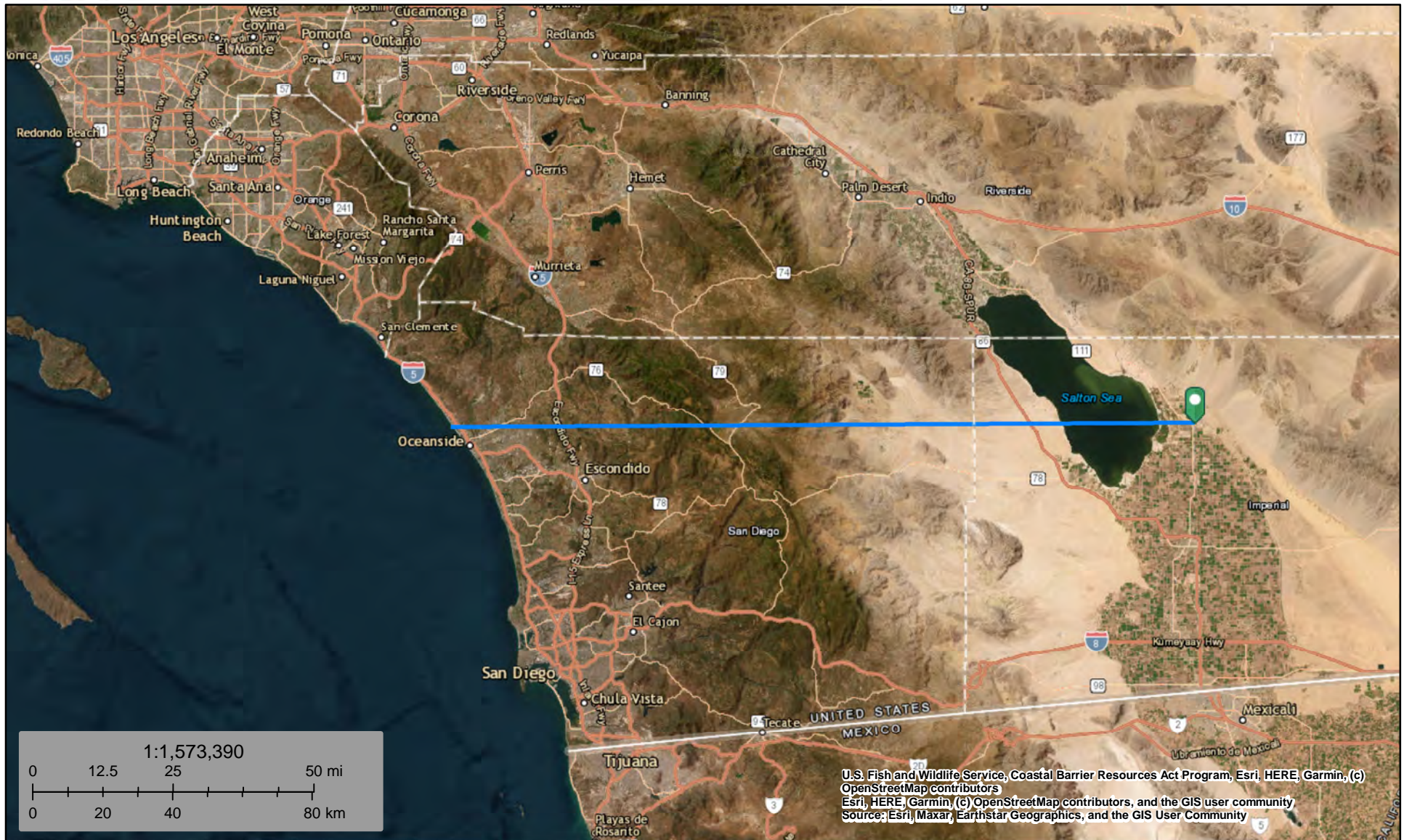


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# U.S. Fish and Wildlife Service Coastal Barrier Resources System

## Coastal Barrier Resource Map



August 9, 2023

### CBRS Units

- Otherwise Protected Area
- System Unit

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

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**ATTACHMENT D**

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**FEMA FIRM**

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**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' NAVD 88. Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations shown in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The horizontal datum was NAD 83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. Base flood elevations shown on this FIRM may be converted to the Imperial County datum, in NAVD88, by adding 1000 feet. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSMC-3 #9202  
1315 East-West Highway  
Silver Springs, MD 20910-3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, an accompanying Flood Insurance Study Report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.

**LEGEND**

**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

**ZONE A** No base flood elevations determined.  
**ZONE AE** Base flood elevations determined.  
**ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.  
**ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.  
**ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being requested to provide protection from the 1% annual chance or greater flood.  
**ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no base flood elevations determined.  
**ZONE V** Coastal flood zone with velocity hazard (wave action); no base flood elevations determined.  
**ZONE VE** Coastal flood zone with velocity hazard (wave action); base flood elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

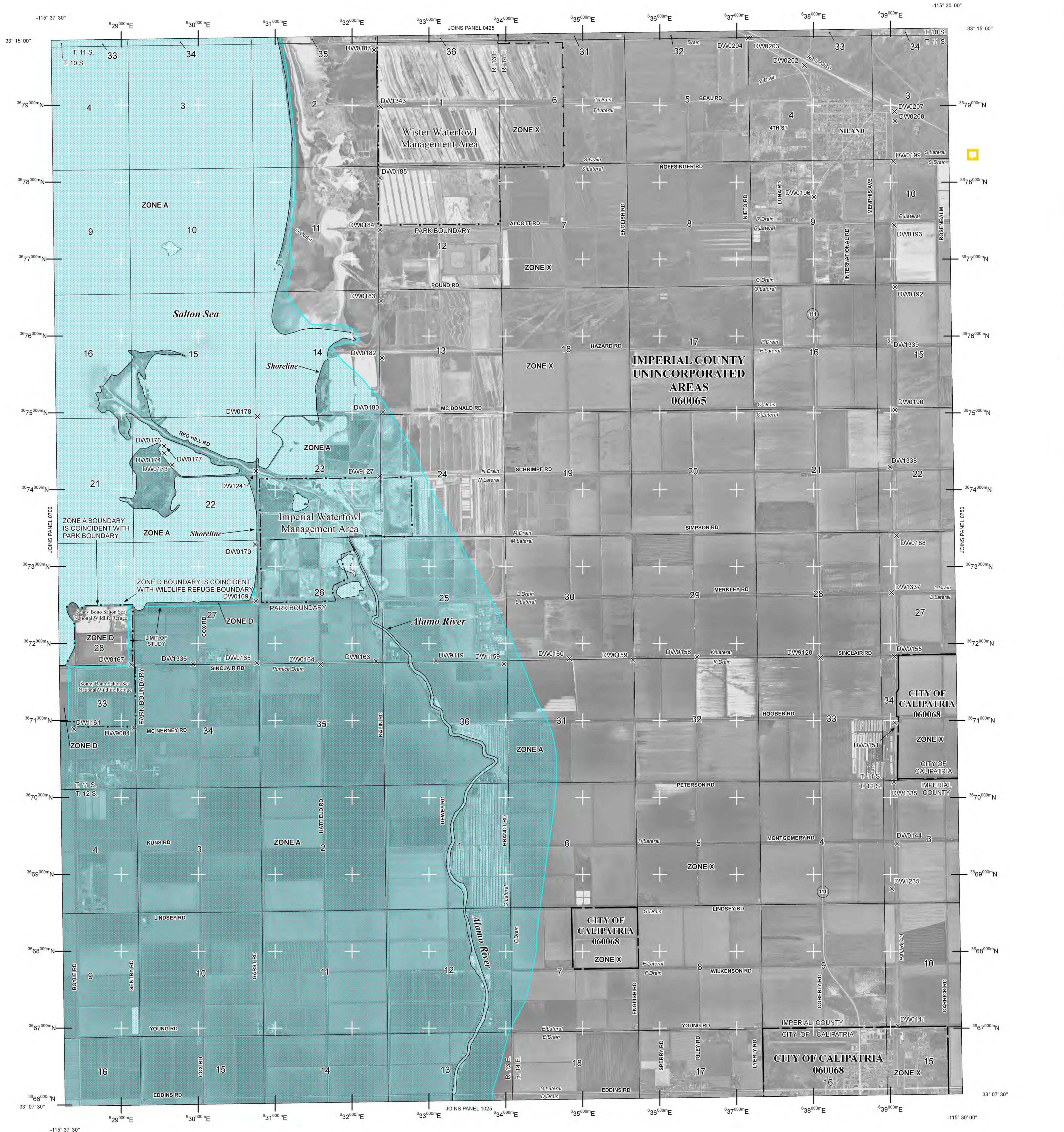
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

**1% annual chance floodplain boundary**  
**0.2% annual chance floodplain boundary**  
**Floodway boundary**  
**Zone D boundary**  
**CBRS and OPA boundary**  
**Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities**  
**Base Flood Elevation line and value; elevation in feet\***  
**Base Flood Elevation value where uniform within zone; elevation in feet\***  
 (\*Referenced to the North American Vertical Datum of 1988)

**(A) --- (A)** Cross section line  
**--- 23 ---** Transsect line  
**97° 07' 30", 32° 22' 30"** Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)  
**37° 00' 00" N** 1000-meter Universal Transverse Mercator grid values, zone 11  
**600000 FT** 5000-foot grid ticks: California State Plane coordinate system, VI zone (FIPSZONE 0406), Lambert Conformal Conic  
**DX5510 X** Bench mark (see explanation in Notes to Users section of this FIRM panel)  
**● M.15** River Mile  
**MAP REPOSITORY** Refer to listing of Map Repositories on Map Index  
**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP** September 26, 2008  
**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.  
 To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

**MAP SCALE 1" = 2000'**  
 1000 0 2000 4000 FEET  
 150 0 150 300 METERS



**NFP**

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0725C**

**FIRM FLOOD INSURANCE RATE MAP IMPERIAL COUNTY, CALIFORNIA AND INCORPORATED AREAS**

**PANEL 725 OF 2300**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL SUFFIX
IMPERIAL COUNTY	060065	0725 C
UNINCORPORATED AREAS	060068	0725 C
CALIPATRIA, CITY OF	060068	0725 C

**Notes to User:** The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject.

**MAP NUMBER 06025C0725C**  
**EFFECTIVE DATE SEPTEMBER 26, 2008**  
 Federal Emergency Management Agency



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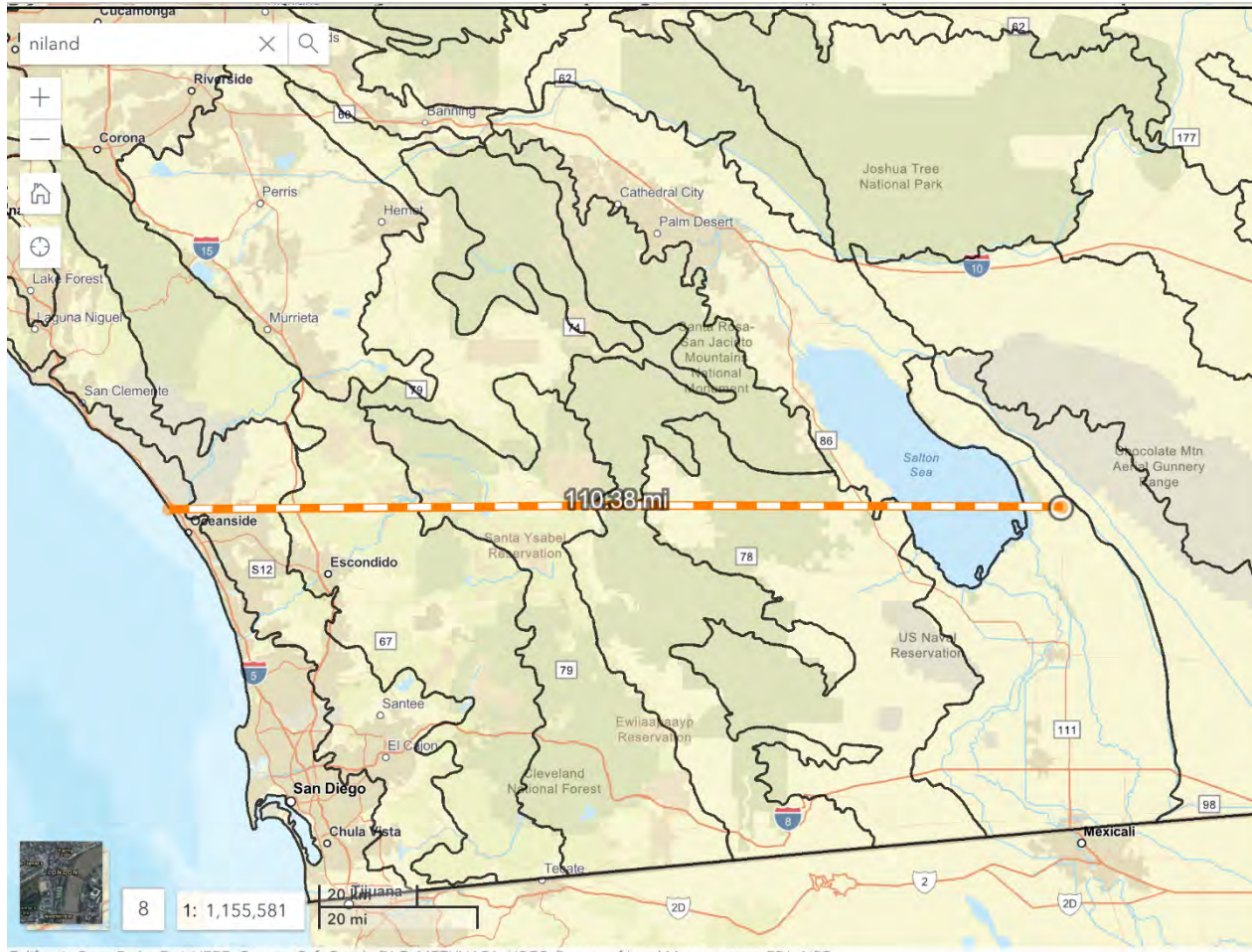
# ATTACHMENT E

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CALIFORNIA DEPARTMENT FISH  
AND WILDLIFE BIOS



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Measurement

Measurement Tool



Unit  
Imperial

Distance  
110.38 mi

New measurement

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# ATTACHMENT F

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ENVIROSTOR AND GEOTRACKER

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Web Remediation Projects

Property Owner Sampling

Confined Animal Sites

Other Sites

Project Sites

Non-Case Information Sites

Sampling Points - Public

Field Points

AGLand Domestic Wells

SIGNIFIES A CLOSED SITE

Tools

Measure a Distance

Site Quick Search

Right-click or perform a long left-click on the map to access additional location specific tools

Map Coverages

Geology and Hydrogeology

California Watersheds

Geologic Units

DWR Groundwater Basins - [INFO](#)

Local and State Coverages

Disadvantaged Communities

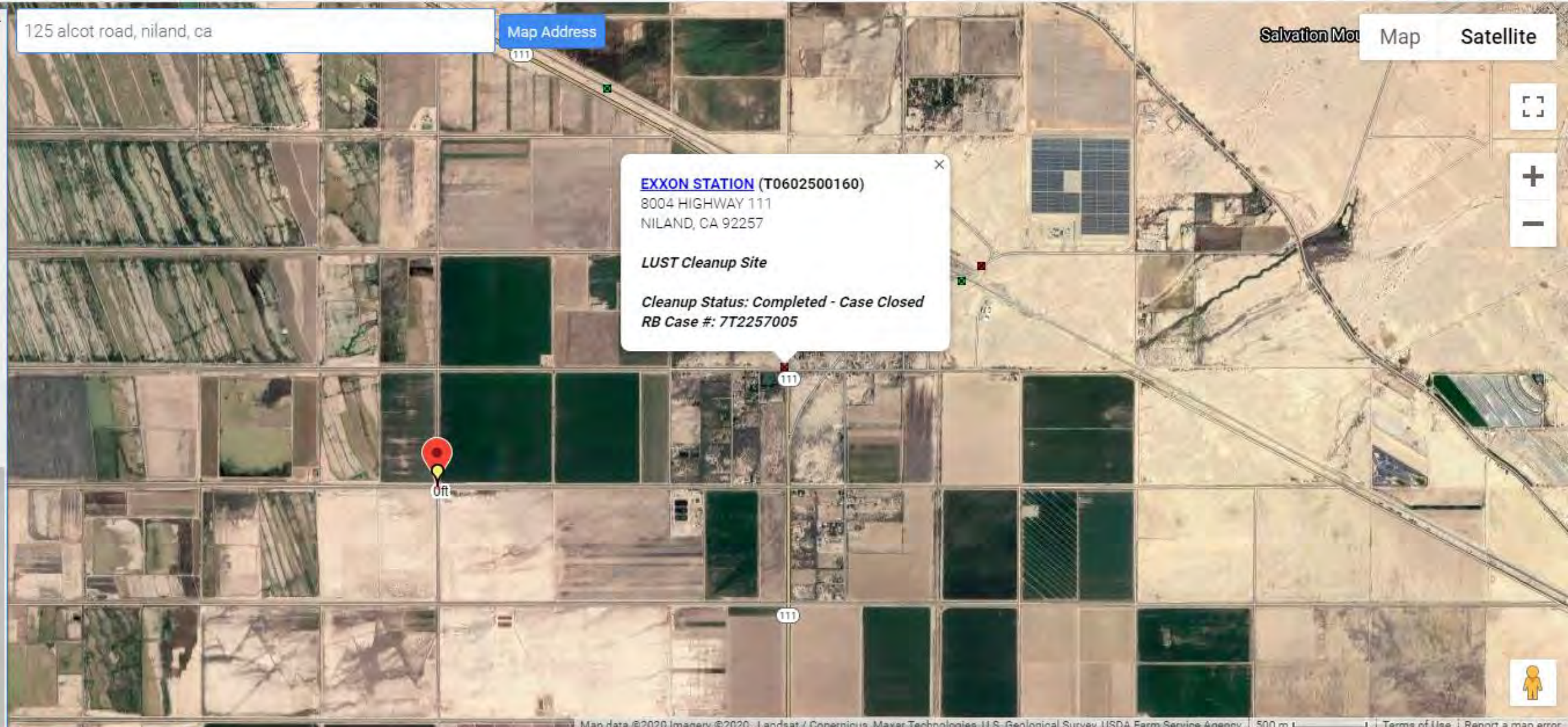
Counties

Regional Board Boundaries

Department of Water Resources Regions

Public Water Systems

Oil / Gas - [INFO](#)



SITES CURRENTLY VISIBLE ON MAP

7 SITES LISTED

[EXPORT THIS LIST TO EXCEL](#)

SITE NAME	GLOBAL ID	FAC ID	STATUS	ADDRESS	CITY
<input checked="" type="checkbox"/> BLACK GOLD SERVICE STATION	T0602500158		COMPLETED - CASE CLOSED	8131 HIGHWAY 111	NILAND
<input checked="" type="checkbox"/> CALIPATRIA UNIFIED SCHOOL DIST	T0602500049		COMPLETED - CASE CLOSED	651 WEST MAIN STREET	CALIPATRIA
<input checked="" type="checkbox"/> CAMPBELL (ABANDONED)	T0602500157		COMPLETED - CASE CLOSED	8132 HIGHWAY 111	NILAND
<input checked="" type="checkbox"/> CHOCOLATE MOUNTAIN NWR - CHOCOLATE MOUNTAIN NAVAL WEAPONS STATION - SITES	DOD100091300		COMPLETED - CASE CLOSED		NILAND
<input checked="" type="checkbox"/> EXXON STATION	T0602500160		COMPLETED - CASE CLOSED	8004 HIGHWAY 111	NILAND
<input checked="" type="checkbox"/> UNION PACIFIC RAILROAD- NILAND	SL0607160795		COMPLETED - CASE CLOSED	EAST OF HWY 111 & ADJACENT TO MAIN ST	NILAND
<input checked="" type="checkbox"/> UNION PACIFIC RAILROAD- WISTER	SL0607122899		COMPLETED - CASE CLOSED	652 NORTHWEST OF NILAND	NILAND



# ATTACHMENT G

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INFORMATION FOR PLANNING  
AND CONSULTATION (IP<sub>d</sub>C)



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# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

### Imperial County, California



## Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250

2777 Sunk Avenue - Suite 200  
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
<b>Western Snowy Plover</b> <i>Charadrius nivosus nivosus</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/8035">https://ecos.fws.gov/ecp/species/8035</a>	<b>Threatened</b>
<b>Yuma Ridgway's Rail</b> <i>Rallus obsoletus yumanensis</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/3505">https://ecos.fws.gov/ecp/species/3505</a>	<b>Endangered</b>

## Fishes

NAME	STATUS
<b>Desert Pupfish</b> <i>Cyprinodon macularius</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/7003">https://ecos.fws.gov/ecp/species/7003</a>	<b>Endangered</b>

## Insects

NAME	STATUS
<b>Monarch Butterfly</b> <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	<b>Candidate</b>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.



You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds  
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

**What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?**

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

## What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be



present and breeding in your project area.

NAME

BREEDING SEASON

**Black Skimmer** *Rynchops niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5234>

Breeds May 20 to Sep 15

**Clark's Grebe** *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jun 1 to Aug 31

**Costa's Hummingbird** *Calypte costae*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9470>

Breeds Jan 15 to Jun 10

**Gila Woodpecker** *Melanerpes uropygialis*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/5960>

Breeds Apr 1 to Aug 31

**Gull-billed Tern** *Gelochelidon nilotica*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9501>

Breeds May 1 to Jul 31

**Long-eared Owl** *asio otus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3631>

Breeds Mar 1 to Jul 15

**Marbled Godwit** *Limosa fedoa*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9481>

Breeds elsewhere

**Mountain Plover** *Charadrius montanus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3638>

Breeds elsewhere



Western Grebe *Aechmophorus occidentalis*

Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/6743>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

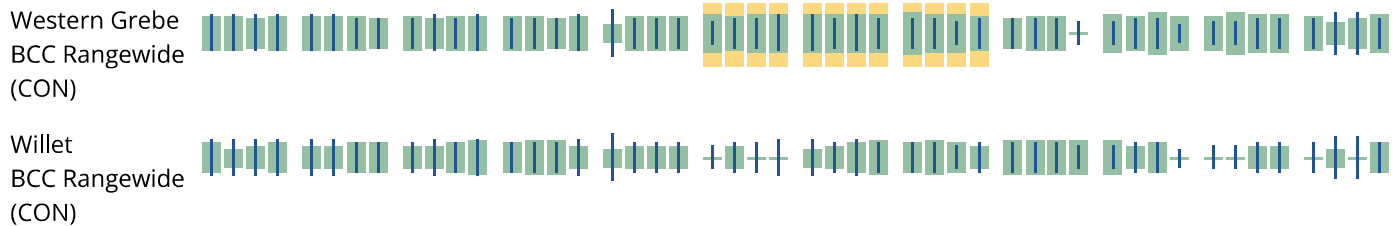
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)







**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of



presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

### Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R2UBFx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

#### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should

seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

# ATTACHMENT H

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## CALIFORNIA IMPORTANT FARMLAND 1984-2020 MAP



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California  
Department of Conservation

Search



CA Farmland Conservancy

Conservation Districts

Farmland Mapping

Williamson Act

## California Important Farmland: 1984-2020

Disclaimer

Overview

New Urban and Built-Up

Most Recent

1984

1986

1988

1990

1992

1994

1996

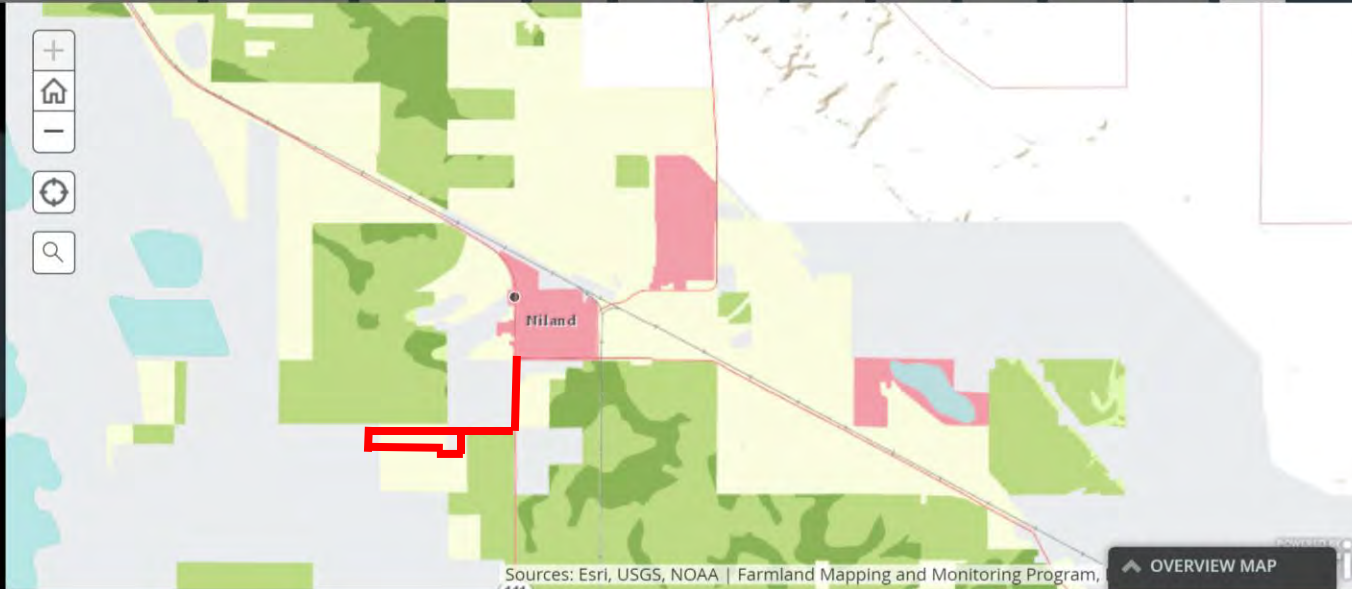
1998

2000

2002



- Farmland of Statewide Importance
- Unique Farmland
- Grazing Land
- Farmland of Local Importance
- Farmland of Local Potential
- Other Land
- Confined Animal Agriculture
- Nonagricultural or Natural Vegetation
- Vacant or Disturbed Land
- Rural Residential Land



OVERVIEW MAP

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# ATTACHMENT I

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## MAP OF REGION 9 SOLE SOURCE AQUIFERS IN CALIFORNIA

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Source: United States Environmental Protection Agency/Google Earth 2016.

## MAP OF SOLE SOURCE AQUIFERS RELATIVE TO PROJECT SITE

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# ATTACHMENT J

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## CALIFORNIA WILD AND SCENIC RIVER SYSTEM AND MANAGEMENT AGENCIES



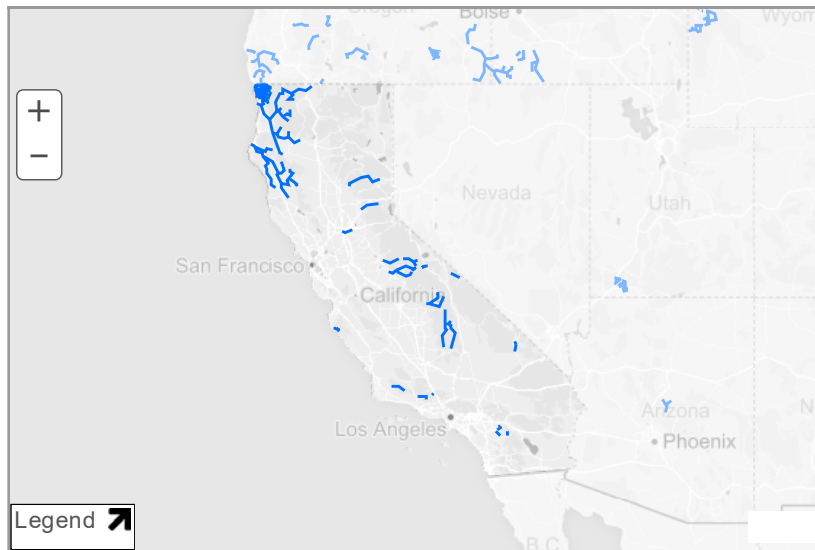
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HOME | NATIONAL SYSTEM | MANAGEMENT | RESOURCES | PUBLICATIONS | CONTACT US | 50 YEARS |

## CALIFORNIA

California has approximately 189,454 miles of river, of which 1,999.6 miles are designated as wild & scenic—1% of the state's river miles.



California

Choose A River

Seen as barren by the first explorers to today's first-time visitors, the rivers of the high desert simply hide their treasures well.

[+ View larger map](#)

- Amargosa River
- American River (Lower)
- American River (North Fork)
- Bautista Creek
- Big Sur River
- Black Butte River
- Cottonwood Creek
- Eel River
- Feather River
- Fuller Mill Creek
- Kern River
- Kings River
- Klamath River
- Merced River
- Owens River Headwaters
- Palm Canyon Creek
- Piru Creek
- San Jacinto River (North Fork)
- Sespe Creek

Sisquoc River  
Smith River  
Trinity River  
Tuolumne River

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[About WSR Act](#)  
[State Listings](#)  
[Profile Pages](#)

**National System**

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[WSR Act Legislation](#)

**River Management**

[Council](#)  
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**Resources**

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**Appendix E – Stormwater Pollution Prevention Plan (SWPPP)**

# Preliminary

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER:

## STORMWATER POLLUTION PREVENTION PLAN

for

542.089 Niland - WWTP and Collection System Improvements

RISK LEVEL: 2

CALTRANS ENCROACHMENT PERMIT NUMBER FOR LOCAL AGENCY / PRIVATE  
ENTITY:

CALTRANS ENCROACHMENT PERMIT NUMBER FOR CONTRACTOR:

Prepared for:

County of Imperial  
940 E Main Street  
El Centro, CA 92243

Submitted by:

Project Site Address

125 West Alcott Road, Niland, CA 92257

Contractor's Water Pollution Control (WPC) Manager/Qualified SWPPP Developer(OSD)

Contractor's Alternate Water Pollution Control (WPC) Manager/Qualified SWPPP  
Developer(OSD)

Contractor's Qualified SWPPP Developer (OSD) (if SWPPP not developed by WPC Manager)

Jack Holt  
760-337-3883

Contractor's Qualified SWPPP Practitioner (OSP) (if different from WPC Manager)

SWPPP Developed by:

The Holt Group, Inc  
1601 North Imperial Avenue  
El Centro, CA 92243  
760-337-3883  
Jack Holt - Project Engineer

SWPPP Date

9/21/2023



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- 100.2 Contractor and QSD SWPPP Certification
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  - 100.3.1 SWPPP Amendments Certification and Approval
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Appendix B .....CEM-2009 SWPPP/WPCP Amendments Log Form  
Appendix C .....CEM-2070 SWPPP/WPCP Annual Certification of Compliance Form  
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Appendix N .....CEM-2052 Stormwater Sample Field Test Report Form  
Appendix O .....CEM-2062 Numeric Action Level Exceedance Report Form  
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**SWPPP Files**

File Category 20.01 .....Stormwater Pollution Prevention Plan (SWPPP)  
File Category 20.02 .....Stormwater Pollution Prevention Plan Amendments  
File Category 20.03 .....Water Pollution Control Schedule Updates  
File Category 20.05 .....Notice of Intent

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File Category 20.90	.....Notice of Termination

# SECTION 100

## SWPPP Certifications and Approval

### ***100.1 Legally Responsible Person Certification and Caltrans Approval***

This SWPPP complies with the applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ) issued by the State Water Resources Control Board. This SWPPP was developed pursuant to the contract Special Provisions, Caltrans Standard Specifications and the Caltrans Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual. The Contractor and Local Agency are responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA). Include copies of the SWRCB-issued WDID Number and NOI form as Attachment B.

*"For Local Agency Use Only"*

#### **Local Agency Legally Responsible Person Certification of the Stormwater Pollution Prevention Plan**

Project Name: 542.089 Niland - WWTP and Collection System Improvements

Caltrans Encroachment Permit  
Number issued to Local Agency:

Caltrans Encroachment Permit  
Number issued to Contractor:

Local Agency Name: County of Imperial

“I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

\_\_\_\_\_  
Legally Responsible Person’s Signature

\_\_\_\_\_  
Date

*Stormwater Pollution Prevention Plan (SWPPP)*  
**542.089 Niland - WWTP and Collection System Improvements**

---

Legally Responsible Person's Name

Telephone Number

---

Legally Responsible Person's Title

*For Use by Caltrans Only*

**CALTRANS OVERSIGHT ENGINEER'S CONCURRENCE OF SWPPP**

I, and/or personnel acting under my direction and supervision, have reviewed this SWPPP and concur with the Legally Responsible Person's findings that it meets the requirements set forth in the contract Special Provisions, Caltrans Standard Specifications, and the Caltrans SWPPP/WPCP Preparation Manual.

---

Caltrans Oversight Engineer's Signature

Date of SWPPP Concurrence

---

Caltrans Oversight Engineer's Name

Telephone Number

## **100.2 Contractor and QSD SWPPP Certification**

### **Contractor's Certification of SWPPP**

Project Name: 542.089 Niland - WWTP and Collection System Improvements

Caltrans Encroachment Permit  
Number issued to Local Agency /  
Private Entity:

Caltrans Encroachment Permit  
Number issued to Contractor:

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

---

Contractor's Signature

Date

*Stormwater Pollution Prevention Plan (SWPPP)*  
**542.089 Niland - WWTP and Collection System Improvements**

---

Contractor's Name

Telephone Number

Project Manager

---

Contractor's Title

**QSD's Certification of SWPPP**

Project Name: 542.089 Niland - WWTP and Collection System Improvements

Caltrans Encroachment Permit  
Number issued to Local Agency /  
Private Entity:

Caltrans Encroachment Permit  
Number issued to Contractor:

"I certify under penalty of law that I relied upon available project and site information, current watershed and basin plan maps and available soil data to develop this SWPPP so that Best Management Practices (BMPs) were designed and placed in accordance with industry standards and best professional judgment to reduce pollutants from leaving the job site. All other sources relied upon to gain information for this project's SWPPP were appropriate and dependable, based on my best professional judgment. To the best of my knowledge and belief, the information submitted in this SWPPP is in compliance with all requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ). I certify that the 'required text' portions of this document are unaltered from the original required text and content."

---

QSD's Signature

---

Date

Jack Holt

760-337-3883

---

QSD's Name

---

QSD's Telephone Number

Project Engineer

---

QSD's Title

## **100.3 Amendments**

### **100.3.1 SWPPP Amendments Certification and Approval**

This SWPPP is meant to be a "living document," therefore, updated and additional information is expected to be added to the SWPPP as the project progresses, including information regarding changes in the field that do not require an amendment, such as the following:

- adding BMPs as required by a *Rain Event Action Plan*

*Stormwater Pollution Prevention Plan (SWPPP)*

**542.089 Niland - WWTP and Collection System Improvements**

---

- increasing or decreasing the quantity of BMPs in the field that are already part of the erosion control plan in the SWPPP,
- moving BMPs shown on the WPCDs to protect water quality during different phases of construction,
- updating WPCDs to reflect actual site conditions, and
- maintenance and repairs to BMPs.

This SWPPP shall be amended when:

- a change in construction or operations affects the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- a contract change order includes additional water pollution control practices, not already specified in the approved SWPPP;
- deemed necessary by the RE;
- SWPPP objectives to reduce or eliminate pollutants in stormwater discharges have not been achieved; or
- a CGP violation has occurred; when the RWQCB determines that a CGP violation has occurred, the SWPPP shall be amended and corrective actions implemented within 14 calendar days after notification by the RWQCB.

The following information shall be included in each amendment:

- who requested the amendment;
- the location of proposed change;
- the reason for the change;
- the original BMP proposed, if any;
- the new BMP proposed; and
- any existing implemented BMP(s).

Approved and certified amendments shall be inserted into the appropriate section or attachment of the SWPPP. All SWPPP amendments prepared by the WPC Manager and approved by the Contractor shall be accepted and certified by the LRP or Approved Signatory. A blank copy of the CEM-2008 SWPPP/WPCP Amendment Certification and Approval form is in Appendix A. For approved amendments, the signed SWPPP Amendment Certification and Approval form shall be attached to the SWPPP amendment.

A copy of each approved and certified amendment shall be inserted into Attachment AA. All SWPPP amendments shall be listed in the SWPPP Amendment Log, available in Appendix B. The Amendment Log shall be kept in SWPPP File Category 20.02 and a copy shall be inserted into Attachment AA.

The SWPPP will be completely revised if either the number of amendments or the amount of information contained in the amendments makes implementation of the SWPPP confusing, as determined by the RE, or the Contractor requests to revise the SWPPP based on planned changes in activities that would require a major SWPPP amendment.

### **100.3.2 Amendment Log**

*Stormwater Pollution Prevention Plan (SWPPP)*

**542.089 Niland - WWTP and Collection System Improvements**

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All approved and certified SWPPP amendments shall be shown on the SWPPP Amendment Log. A blank Amendment Log is available in Appendix B. The SWPPP Amendment Log shall include the following information:

- amendment number;
- amendment date;
- brief description of the amendment;
- name of individual requesting amendment; and
- approval date.

All SWPPP amendment(s) prepared and approved as discussed in Section 100.3.1 shall be documented in the Amendment Log and kept in SWPPP File Category 20.02: Stormwater Pollution Prevention Plan Amendments. A copy of the Amendment Log shall also be inserted into Attachment AA.

### ***100.4 Annual Compliance and Approval***

By July 15 of each year, the Local Agency / Private Entity shall submit an Annual Certification of Compliance to the Caltrans Oversight RE stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. By August 1 of each year, the Caltrans Oversight Engineer will review and accept the Annual Certification of Compliance. The Caltrans Oversight Engineer will document acceptance of the Annual Certificate of Compliance by completing and signing the Acceptance of Annual Certification of Compliance. A blank copy of the CEM-2070 SWPPP/WPCP Annual Certification of Compliance form is included in Appendix C. Completed Annual Certification of Compliance forms will be filed in SWPPP File Category 20.70: Annual Certification of Compliance.

# SECTION 200

## OBJECTIVES

This SWPPP has five (5) main objectives, which are listed below.

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled.
2. Where not otherwise required to be under a California Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated.
3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non- stormwater discharges from the construction activity to the best available technology (BAT) / best conventional technology (BCT) standard.
4. Calculations and design details for site run-on, as well as BMP controls, are complete and correct.
5. Stabilization BMPs designed to eliminate or reduce pollutants after construction is complete have been installed

This SWPPP was developed to conform to the required elements of the CGP (CAS000002, Order No. 2009-0009-DWQ as ammended by Order 2010-0014-DWQ and 2012-006-DWQ) issued by the SWRCB.

This SWPPP is designed to be a useful document for those who must implement the SWPPP on a daily basis in the field. Most of the information necessary for the daily implementation of the SWPPP is contained in Attachment BB: Water Pollution Control Drawings, Attachment CC: Water Pollution Control Best Management Practices List, and Attachment DD: Water Pollution Control Schedule.

This SWPPP is also a “living document” because updated and additional information is added to the SWPPP file categories as the project progresses, including:

- SWPPP Amendments;
- Subcontractor and Material Supplier Information;
- Contractor Personnel Training Documentation;
- Site Inspection Reports;
- Monthly Status Reports;
- Rain Event Action Plans;
- Sampling and Analysis Results; and
- Notice of Discharge Reports.

The SWPPP shall be readily available on site for the duration of the project.



# SECTION 300

## PROJECT AND CONTRACTOR INFORMATION

### 300.1 Project Description

THE NILAND WASTEWATER TREATMENT PLANT (WWTP) HAS A LONG HISTORY OF EFFLUENT DISCHARGE VIOLATIONS DATING BACK TO 2003. THE MAJORITY OF THE VIOLATIONS WERE THE RESULT OF NPDES DISCHARGE PERMIT VIOLATIONS FOR COPPER AND THALLIUM. A 2016 PRELIMINARY ENGINEERING REPORT (PER) PREPARED BY THE HOLT GROUP, INC. REVIEWED THE NILAND WWTP EFFLUENT VIOLATIONS AND ALTERNATIVE IMPROVEMENTS TO ADDRESS THE VIOLATIONS. THE ALTERNATIVE SELECTED TO ADDRESS THE DISCHARGE VIOLATIONS WAS TO CONSTRUCT EVAPORATION PONDS FOR THE ULTIMATE DISPOSAL OF THE TREATED EFFLUENT WASTEWATER. THE EVAPORATION PONDS WILL ALLOW FOR THE ELIMINATION OF THE POINT DISCHARGE TO THE IMPERIAL IRRIGATION DISTRICT "R" DRAIN AND THE NPDES DISCHARGE PERMIT WASTEWATER EFFLUENT REQUIREMENTS. A WASTE DISCHARGE REQUIREMENT (WDR) PERMIT WILL BE REQUIRED FOR THE NILAND WWTP AND EVAPORATION POND SYSTEM IN LIEU OF THE NPDES DISCHARGE PERMIT. IN ADDITION TO THE CONSTRUCTION OF EVAPORATION PONDS, IMPROVEMENTS TO THE GRAVITY SANITARY SEWER PIPELINE COLLECTION SYSTEM UPSTREAM OF THE WWTP ARE TO BE ACCOMPLISHED. THE IMPROVEMENTS TO THE GRAVITY SANITARY SEWER PIPELINE COLLECTION SYSTEM WILL LIMIT INFILTRATION (INCLUDING COPPER AND THALLIUM) INTO THE COLLECTION SYSTEM AND WWTP. THE EXISTING WWTP WILL REMAIN OPERATIONAL TO TREAT THE INFLUENT RAW WASTEWATER TO A SECONDARY EFFLUENT CONDITION PRIOR TO DIRECTING THE SECONDARY EFFLUENT TO THE EVAPORATION PONDS. CAPITAL IMPROVEMENTS TO THE EXISTING WWTP COMPONENTS (RESULTANT FROM AGED TREATMENT PLANT INFRASTRUCTURE) WILL ALSO BE ACCOMPLISHED TO INSURE THE EXISTING WASTEWATER TREATMENT PLANT COMPONENTS ARE SATISFACTORILY FUNCTIONING.

THE THREE (3) PRIMARY NILAND WWTP AND COLLECTION SYSTEM PROJECT COMPONENTS AND MAJOR ITEMS ASSOCIATED WITH EACH COMPONENT CONSIST OF THE FOLLOWING ITEMS:

1. EXISTING WWTP CAPITAL IMPROVEMENTS INCLUDING:

1.1 REPLACEMENT OF FIBERGLASS GRATING AND REPAIR OF MANHOLE COVER AT THE TOP OF THE RAW INFLUENT PUMP STATION WET WELL.

1.2 REPAIR OF HDPE LINER MATERIAL AT THE AERATION PONDS.

1.3 CAPITAL IMPROVEMENTS TO THE CHLORINATION/DE-CHLORINATION STRUCTURE. REPAIR OF CONCRETE SPALLING AND FAILURE AREAS ALONG THE CHLORINATION/DE-CHLORINATION STRUCTURE WALLS. THE CONCRETE FLASHMIXER CONCRETE CEILING IS TO BE REPLACED. SECTIONS OF THE HANDRAIL ARE TO BE REPAIRED AND REPLACED. THE EXISTING EYEWASH STATION IS TO BE REPLACED.

1.4 CAPITAL IMPROVEMENTS AT THE CHEMICAL CONTAINMENT STRUCTURE FACILITY INCLUDE CONCRETE FOUNDATION AND WALL REHABILITATION/REPLACEMENT. THE SODIUM HYPOCHLORITE CHEMICAL TANK AND DUPLEX CHEMICAL PUMPING SYSTEM ARE TO BE REPLACED. THE TWO (2) EXISTING EYEWASH STATIONS ARE TO BE REPLACED. THE SODIUM BISULFITE CHEMICAL SYSTEM PUMPS ARE TO BE REPLACED.

**542.089 Niland - WWTP and Collection System Improvements**

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1.5 THE CHEMICAL RATE OF FLOW CONTROLLERS INSIDE THE WASTEWATER TREATMENT PLANT ARE TO BE REPLACED.

1.6 CAPITAL IMPROVEMENTS AT THE FLOWMETER/SAMPLING VAULT INCLUDE THE INSTALLATION OF HAND RAIL ALONG THE EXTERIOR OF THE SAMPLING VAULT.

1.7 CAPITAL IMPROVEMENTS AT THE GROUND WATER PUMP STATION INCLUDES THE REPLACEMENT OF THE ALUMINUM GRATE/COVER LOCATED AT THE TOP OF THE WET WELL.

1.8 THE EXISTING RESILIENT WEDGE GATE VALVES ALONG THE PIPING WITHIN THE AERATION PONDS AND REMAINING PLANT FACILITY ARE CURRENTLY NON-FUNCTIONAL. THE RESILIENT WEDGE GATE VALVES ARE TO BE REPLACED WITH ECCENTRIC PLUG VALVES.

1.9 THE WWTP ENTRANCE ROAD BRIDGE CROSSING THE IMPERIAL IRRIGATION DISTRICT "R" CANAL IS TO BE REPLACED. THE BRIDGE WILL BE REPLACED BY THE IMPERIAL IRRIGATION DISTRICT.

1.10 A NEW POTABLE WATER TREATMENT PLANT IS TO BE CONSTRUCTED FOR THE WWTP WASH DOWN WATER AND POTABLE WATER USED BY THE LABORATORY BUILDING.

1.11 OTHER MINOR EXISTING WWTP CAPITAL IMPROVEMENTS.

2. CONSTRUCTION OF EVAPORATION PONDS AND EFFLUENT CONVEYANCE SYSTEM INCLUDING:

2.1 INSTALLATION OF AN EFFLUENT PUMP STATION DOWNSTREAM OF THE EXISTING WWTP FLOWMETER/SAMPLING VAULT. THE EFFLUENT PUMP STATION WILL TRANSMIT THE EXISTING WWTP TREATED EFFLUENT TO THE EVAPORATION PONDS.

2.2 INSTALLATION OF 8 INCH DIAMETER GRAVITY AND 6 INCH DIAMETER FORCE MAIN CONVEYANCE PIPING FROM THE EFFLUENT PUMP STATION TO THE EVAPORATION PONDS INCLUDING VALVES, FITTINGS AND APPURTENANCES.

2.3 INSTALLATION OF A STANDPIPE ALONG THE GRAVITY AND FORCE MAIN EFFLUENT CONVEYANCE PIPING. INSTALLATION OF PCC HEADWALLS AT THE PIPING OUTLET POINT TO THE EVAPORATION PONDS.

2.4 CONSTRUCTION OF THREE (3) EVAPORATION PONDS USING THE NATIVE EARTH AT THE PROJECT SITE. EACH EVAPORATION POND BOTTOM SHALL CONSIST OF 10 ACRES. THE TOTAL EVAPORATION POND SITE IS COMPRISED OF 56 ACRES.

2.5 INSTALLATION OF AN HDPE LINER ALONG THE INTERIOR EMBANKMENTS OF THE EVAPORATION PONDS.

2.6 INSTALLATION OF A 6 FOOT HIGH CHAIN LINK FENCE AROUND THE PERIMETER OF THE EVAPORATION POND SITE.

2.7 CONSTRUCTION OF AN ACCESS ROAD EXTENDING FROM THE INTERIOR OF THE EXISTING WWTP TO THE EVAPORATION POND SITE.

2.8 INSTALLATION OF MONITORING WELLS AROUND THE PERIMETER OF THE EVAPORATION PONDS.

3. COLLECTION SYSTEM IMPROVEMENTS

**542.089 Niland - WWTP and Collection System Improvements**

3.1 REHABILITATE THE EXISTING WASTEWATER COLLECTION SYSTEM 10 INCH GRAVITY PIPELINE ALONG ALCOTT ROAD FROM THE EXISTING WWTP TO HIGHWAY 111 WITH A CURED IN PLACE PIPING (CIPP) METHOD.

3.2 REHABILITATION OF TEN (10) EXISTING SANITARY SEWER MANHOLES ALONG THE GRAVITY SANITARY SEWER OUTFALL PIPELINE.

3.3 REPLACEMENT OF FOUR (4) EXISTING SANITARY SEWER MANHOLES ALONG THE GRAVITY SANITARY SEWER OUTFALL PIPELINE.

3.4 REHABILITATE THE EXISTING 10 INCH SANITARY SEWER PIPELINE BENEATH THE IID “S” LATERAL AND DRAIN AT THE INTERSECTION OF NOFFSINGER ROAD AND HIGHWAY 111 WITH A CURED IN PLACE PIPING (CIPP) METHOD.

3.5 REHABILITATE THE EXISTING 8 INCH SANITARY SEWER PVC PIPELINE SIPHON EXTENDING BENEATH THE IID "R" DRAIN WITH A CURED IN PLACED PIPING (CIPP) METHOD. REPLACE THE 10 INCH VCP PIPELINE SECTIONS IMMEDIATELY UPSTREAM AND DOWNSTREAM OF THE 8 INCH PIPELINE SIPHON WITH NEW 10 INCH SDR 26 PVC SANITARY SEWER PIPELINES.

3.6 OTHER MINOR COLLECTION SYSTEM IMPROVEMENTS.

**300.2 Project Risk Level**

The risk level assessment of the project site was calculated to be Risk Level 2 . This risk level will determine the minimum level of BMPs that will be acceptable based on the project site and the project construction activities. The risk level is the basis for the minimum level of site-specific monitoring and reporting that will be required. The risk level is based on project duration, proximity to impaired receiving waters, and soil conditions. The Risk Level Determination is discussed in Section 500.1.3 and the calculations are included in Attachment C.

**300.3 Construction Sites Estimates**

The following are estimates of the construction site.

- Construction site area 70 acres
- Percentage impervious area before construction 0.7%
- Runoff coefficient before construction 0.40
- Percentage impervious area after construction 0.8%
- Runoff coefficient after construction

Run-on from off-site areas anticipated:  Yes  No

Anticipated stormwater run-on flow rate to the construction site:

Anticipated drainage patterns following the completion of grading activities are shown on the WPCDs from Attachment BB.

**300.4 Vicinity and Site Map**



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Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7):

Email address:

**Alternate WPC Manager**

Name:

Title: **Alternate WPC Manager**

Company:

Address:

,

Phone Number:

Email address:

**Qualified SWPPP Developer (QSD)**

Name: **Jack Holt**

Title: **Qualified SWPPP Developer**

Company: **The Holt Group, Inc**

Address: **1601 North Imperial Avenue  
El Centro, CA 92243**

Phone Number: **760-337-3883**

Email address:

**Resident Engineer**

Name:

Title: **Resident Engineer**

Company: **County of Imperial**

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Address: **940 E Main Street**  
**El Centro, CA 92243**

Phone Number:

Emergency Phone Number (24/7)

Email address:

**Contractor**

Name:

Title: **Contractor**

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

**Qualified SWPPP Practitioner (QSP)**

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

**Erosion and Sediment Control Provider**

Name:

Title:

Company:

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Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

**Stormwater Sampling and Testing Agent**

Name:

Title:

Company:

Address:

,

Phone Number:

Emergency Phone Number (24/7)

Email address:

### ***300.7 List of Subcontractor and Materials Suppliers***

The following subcontractors will be working on this project:

1

SWPPP Responsibility:

Contact information for each subcontractor will be provided in the SWPPP Notification log in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters. Contact information shall include subcontractor name, type of work performed, contact name, phone number and emergency telephone number (24/7).

The following materials suppliers will be delivering materials to the project site and must comply with pertinent SWPPP requirements:

1

Contact information for each material supplier will be provided in the SWPPP Notification log in SWPPP File Category 20.22: Material Supplier Contact Information and Notification Letters. Contact information shall include company name, type of material supplied, contact name and phone number.

All subcontractors and material suppliers shall be notified that the project is covered by the

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- SWRCB Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, September 02, 2009 (Construction General Permit).

Each subcontractor and material supplier shall also be notified that the project has a SWPPP and the pertinent water pollution control BMPs with which the subcontractor or material supplier must comply. If subcontractors or material suppliers are added during the project, appropriate notification that the project has a SWPPP and the pertinent water pollution control BMPs shall be given to the subcontractor or materials supplier prior to working or supplying materials on the project site.

A SWPPP Notification Letter shall be sent to all subcontractors and material suppliers. A sample notification letter and notification letter log is provided in Appendix D. A copy of SWPPP Notification Letters sent to subcontractors and material suppliers are in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters or 20.22 Material Supplier Contact Information and Notification Letters. Notification letter logs and contact information are filed in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters and File Category 20.22: Material Supplier Contact Information and Notification Letters.

### **300.8 Training**

The Contractor's WPC Manager is a QSD. The WPC Manager for this project, meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- 

The WPC Manager has received the following training:

- 

The WPC Manager has the following SWPPP development and implementation experience:

- 

The SWPPP for this project was developed by a QSD. The QSD that developed the SWPPP meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- 

The QSD has received the following training.

- 

The QSD has the following SWPPP development experience.

- 

A QSP will be assisting the WPC Manager to ensure that: required BMPs are implemented; non-stormwater and



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stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. Since September 2, 2011, the QSP for this project, must meet the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- 

The QSP has received the following training.

- 

The QSP has the following SWPPP implementation experience.

- 

Ongoing, formal training sessions for individuals responsible for SWPPP development and implementation shall be selected from one of the following organizations.

- City of Los Angeles Storm Water Program
- County of Los Angeles Storm Water Program
- State of California RWQCB
- IECA-, ABAG- and/or AGC-sponsored training
- USEPA-sponsored training
- Recognized municipal stakeholder organizations throughout California
- Professional organizations and societies in the building and construction field
- 

Contractor or subcontractor employees responsible for water pollution control BMP installation, maintenance and repair have received the following training.

- 

Contractor and subcontractor employees shall be trained prior to working on the site in the following subjects:

- water pollution control rules and regulations
- implementation and maintenance for:
  - temporary soil stabilization,
  - temporary sediment control,
  - tracking control,
  - wind erosion control,

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- material pollution prevention control,
- waste management, and
- non-stormwater management
- identification and handling of hazardous substances
- potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Informal employee training shall include tailgate site meetings to be conducted weekly; tailgate meetings should address the following topics:

- water pollution control BMP deficiencies and corrective actions;
- BMPs that are required for work activities during the week;
- spill prevention and control;
- material delivery, storage, use, and disposal;
- waste management; and
- non-stormwater management procedures.

A summary of formal and informal training of various personnel is shown in Attachment E. A copy of all training certificate(s) (e.g., Caltrans 24-Hour Training Class and CGP Training) for the WPC Manager and the Qualified SWPPP Developer are included in Attachment E.

Training records for project personnel shall be updated by completing the CEM-2023 Stormwater Training Record form, available in Appendix E, and the CEM-2024 Stormwater Training Log - Optional form, available in Appendix F. Records of training, with training certificates attached, when applicable, and the training log will be kept in SWPPP File Category 20.23: Contractor Personnel Training Documentation. Personnel training records, with required documentation attached and an updated training log, shall be submitted to the RE within five (5) days of completion of training.

Training information, consisting of the following items, shall be provided in the Stormwater Annual Report:

- documentation of all training for individuals responsible for all activities associated with compliance with CGP
- documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair, and
- documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.
-

# SECTION 400

## REFERENCES, OTHER PLANS, PERMITS AND AGREEMENTS

The documents listed below are made a part of this SWPPP by reference.

- Standard Plans and Specifications, dated 2018.
- Contract Plans and Special Provisions for Contract No. , dated , prepared by .
- SWRCB-Order No. 2009-0009-DWQ, Order No. 2009-0009-DWQ as amended by Order 2010-0014-DWQ and 2012-006-DWQ NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Construction General Permit), September 2009
- RWQCB Basin Plan: *Water Quality Control Plan for the Colorado River Basin Region*
- *Caltrans Statewide Storm Water Management Plan* (SWMP), dated July 2016
- *Caltrans SWPPP/WPCP Preparation Manual*, dated October 2016
- *Caltrans Construction Site Monitoring Program Guidance Manual*, August 2013
- 

Attachment F includes copies of the Caltrans Statewide Permit, the CGP, and other local, state, and federal plans and permits. A list of the other local, state, and federal plans and permits included in Attachment F is provided below.

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# SECTION 500 DETERMINATION OF CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

## 500.1 Pollutant Sources

### 500.1.1 Inventory of Materials and Activities that May Pollute Stormwater

The following table contains a list of construction activities that have the potential to contribute pollutants, including sediment, to stormwater discharges. All potential pollutants, except sediment, and their locations shall be listed in this section, and, where possible, the locations shall be shown on the WPCDs from Attachment BB. Details for controlling these pollutants using soil stabilization and sediment control BMPs are discussed in Sections 500.3.1 through 500.3.5. Potential non-storm water and waste management-related discharges are further described in Sections 500.4.1 and 500.4.2, respectively.

TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
<input checked="" type="checkbox"/> Demolition	<input checked="" type="checkbox"/> Pavement Removal (asphalt concrete, concrete) <input type="checkbox"/> Structure Demolition/Removal over or Adjacent to Water <input type="checkbox"/> Building Demolition (Structure, HVAC, insulation) <input type="checkbox"/> Hardscape Demolition (Parking areas, curbs, gutters, sidewalks)
<input checked="" type="checkbox"/> Earthwork	<input checked="" type="checkbox"/> Clearing and Grubbing <input checked="" type="checkbox"/> Grading Activities <input type="checkbox"/> Soil Import and Export <input checked="" type="checkbox"/> Stockpiling <input checked="" type="checkbox"/> Excavation <input type="checkbox"/> Disturbance of Contaminated Soil <input checked="" type="checkbox"/> Dewatering <input type="checkbox"/> Temporary Stream Crossing <input type="checkbox"/> Drainage Construction <input checked="" type="checkbox"/> Dredging <input type="checkbox"/> Pile Driving <input type="checkbox"/> Utilities <input type="checkbox"/> Line Flushing (hydrostatic test water, pipe flushing) <input type="checkbox"/> Landscaping, Planting and Plant Maintenance, Amending of Soil and Mulching <input type="checkbox"/> Material and Equipment Use over Water
<input checked="" type="checkbox"/> Masonry, Concrete, Asphalt Work	<input checked="" type="checkbox"/> Saw Cutting (cement and brick dust, saw cut slurries) <input type="checkbox"/> Paving and Grinding

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<b>TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS</b>	
	<input checked="" type="checkbox"/> Concrete Placement (colored chalks) <input checked="" type="checkbox"/> Concrete Curing (curing and glazing compounds) <input checked="" type="checkbox"/> Concrete Finishing (surface cleaners) <input type="checkbox"/> Concrete Waste Management
<input type="checkbox"/> Building Construction	<input type="checkbox"/> Paint Preparation, Painting, Stenciling, and Etching <input type="checkbox"/> Material Use <input type="checkbox"/> Material Delivery and Storage <input type="checkbox"/> Adhesives (glues, resins, epoxy synthetics, caulks, sealers, putty, sealing agents and coal tars) <input type="checkbox"/> Cleaning, Polishing (metal, ceramic, tile), and Sandblasting Operations <input type="checkbox"/> Plumbing [solder (lead, tin), flux (zinc chloride), pipe fitting] <input type="checkbox"/> Framing (sawdust, particle board dust and treated woods) <input type="checkbox"/> Interior Construction (tile cutting, flashing, saw-cutting drywall, galvanized metal in nails and fences, and electric wiring)
<input type="checkbox"/> Equipment Use	<input type="checkbox"/> Vehicle and Equipment Cleaning <input type="checkbox"/> Vehicle and Equipment Fueling <input type="checkbox"/> Vehicle and Equipment Maintenance
<input checked="" type="checkbox"/> Waste Management	<input type="checkbox"/> Hazardous Waste Management <input type="checkbox"/> Solid Waste Management (litter, trash, and debris) <input type="checkbox"/> Liquid Waste Management (wash water) <input checked="" type="checkbox"/> Sanitary Septic Waste Management (portable toilets, disturbance of existing sewer lines)

The WPC Manager shall update the list of potential pollutants in accordance with onsite conditions, documenting all materials or equipment that have been received or produced onsite that are not designed to be outdoors and are potential sources of stormwater contamination.

**Materials Management Plan**

Table 500.1.1 includes a list of construction activities and associated materials that are anticipated to be used onsite. These activities and associated materials will or could potentially contribute pollutants, other than sediment, to storm water runoff.

A list of construction materials that will be on site and have the potential to contribute pollutants, other than sediment, to stormwater runoff, which has been prepared to prevent or minimize the off-site discharge of those pollutants, are provided below.

The following stockpiles will be covered and bermed prior to likely precipitation events.

- Native excavation materials
- Construction debris/concrete waste

The following materials will be kept off the ground or bermed and covered prior to likely precipitation events.

-

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The following materials will be properly stored according to Material Safety Data Sheet requirements.

- 

The following dumpsters shall be covered prior to likely precipitation events.

- Dumpsters at all locations onsite.

The following areas will be inspected for leaks or spills prior to likely precipitation events.

- Portable Toilets
- 

Potential pollutants shall not be stored within 50 feet of stormwater conveyance features or concentrated flow paths. In addition, authorized non-stormwater discharges shall not be made within 50 feet of potential pollutants.

### **500.1.2 Potential Pollutants from Site Features or Known Contaminates**

Former site usage or known site contamination may contribute pollutants to stormwater discharges from the site. Based on information available for the project site, the following site usage and historical contamination has been determined:

Former Industrial Operations:     Yes     No

Description of Former Industrial Operations

Historic Contamination:         Yes     No

- 

The following contaminants are known to exist at the project site locations identified:

- 

### **500.1.3 Risk Level Determination**

A construction site risk assessment has been performed for the project and the resultant risk level is Risk Level 2.

The risk level was determined through the use of the RUSLE method (K, LS provided in SMARTS, and a site-specific analysis). The risk level is based on project duration, location, proximity to impaired receiving waters and soil conditions. A copy of the Risk Level determination submitted on SMARTS with the PRDs is included in Attachment C.

The following list of values was utilized to estimate the sediment and receiving water risk factors in order to determine the risk level for the project.

Original Construction Start Date: 1-4-24  
Anticipated Construction End Date: 12-5-24  
Construction Duration Estimate: 336 Days  
R=8.23, K Factor=0.43, LS Factor=0.68

Watershed Erosion Estimate (R<sub>x</sub>K<sub>x</sub>L<sub>S</sub>) = 2.41 Tons/Acre  
Site Sediment Risk Factor=LOW  
Receiving Water Risk=HIGH  
Project Combined Risk Level = Level 2

## **500.2 Pre-Construction Existing Stormwater Control Measures**

The following are existing (pre-construction) control measures encountered within the project site.

- 

The existing surface elevations in the area to be constructed are relatively flat, with a fall in elevation of 0.5 foot in 500 feet (0.1%), slightly flowing northeasterly.

The entire area is relatively flat and sheet flows into the adjacent open ditch/IID R Drain during major storm events. The open channel ultimately finds its way into the Salton Sea.

## **500.3 BMP Selection for Erosion and Sediment Control**

The Contractor shall control construction site erosion through the implementation of effective erosion and sediment control measures in accordance with the CGP. The Contractor and the WPC Manager shall develop a schedule that includes the sequencing of construction activities and the implementation of effective erosion control BMPs while taking local climate (rainfall, wind, etc.) into consideration, thereby reducing the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking. The SWPPP schedule shall: describe when work activities will be performed that could cause the discharge of pollutants in stormwater; describe the water pollution control practices associated with each construction phase; and identify the soil stabilization and sediment control practices for all disturbed soil areas. Effective soil cover shall be provided for:

- Temporary stockpile of erodible materials

Additional erosion and sediment control BMPs may be required in other locations on the project site as work progresses in order to prevent sediment from leaving the construction site. These measures shall be determined by the Contractor and the WPC Manager in the field. As long as the water pollution control measures consist of additions to the BMPs already selected in the approved SWPPP, then these additional measures do not require a SWPPP amendment and the WPC Manager shall simply show the additional measures on the WPCDs. If erosion control or sediment control BMPs must be changed because of field conditions or because they are determined to be ineffective, the SWPPP must be amended. Once deemed necessary, corrective actions/design changes to the SWPPP shall be reviewed and signed by the WPC Manager, implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). Immediate corrective action is required for numeric action level (NAL) exceedances. Routine BMP maintenance or the implementation of an additional quantity of a BMP included in the SWPPP as recommended by the WPC Manager does not require an amendment to the SWPPP.

An effective combination of erosion (soil stabilization) and sediment control BMPs shall be implemented and maintained during the project. The following principles shall be followed to the maximum extent practicable to control erosion and sedimentation in disturbed areas at the site.

- Frequent watering/dust control of the site during construction activities.
- Establishment of finish surface to match existing surface

A more concise listing of the BMP control measures to be implemented and maintained at the project site are denoted in the BMP selection tables in the following sub-sections.

### 500.3.1 Temporary Run-on Control BMPs

<b>TABLE 500.3.1 TEMPORARY RUN-ON CONTROL BMPs</b>						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
SS-1	Scheduling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-9	Earth Dikes / Drainage Swales & Lined Swales	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-10	Outlet Protection / Velocity Dissipation Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-4	Temporary Check Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-5	Fiber Rolls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-6	Temporary Gravel Bag Berm/Earthen Berm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-8	Temporary Sandbag Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED(3)</b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-5, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE.

#### Implementation of Temporary Run-on Controls BMPs



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Temporary run-off control will consist of drainage swale, and temporary fiber rolls.

**500.3.2 Soil Stabilization (Erosion Control)**

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary soil stabilization requirements, temporary soil stabilization measures required by the contract documents, and other measures selected by the Contractor.

Sufficient soil stabilization materials will be maintained on site to allow implementation in conformance with Caltrans requirements and as described in this SWPPP. This includes implementation requirements for active and non-active areas that require deployment before the onset of rain.

The following soil stabilization BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Temporary soil stabilization BMPs are listed by location in the WPCBMPL in Attachment CC and are shown on the WPCDs from Attachment BB. Any details for temporary soil stabilization BMPs are shown in Attachment BB.

<b>TABLE 500.3.2 TEMPORARY SOIL STABILIZATION BMPs</b>						
<b>CONSTRUCTION BMP ID NO.(1)</b>	<b>BMP NAME</b>	<b>CONTRACT MIN REQUIRE- MENT(2)</b>	<b>CONTRACT BID ITEM</b>	<b>BMP USED</b>		<b>IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON</b>
				Yes	No	
SS-1	Scheduling	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SS-3	Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-3	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-4	Temporary Erosion Control (With Temporary Seeding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-5	Temporary Soil Stabilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-6	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-7	Temporary Erosion Control Blanket (On Slope)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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SS-7	Temporary Erosion Control Blanket (In swale or ditch)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-7	Temporary Cover (Geotextiles and Mats)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-8	Temporary Mulch (Wood)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-9	Earth Dikes / Drainage Swales & Lined Swales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-10	Outlet Protection/ Velocity Dissipation Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-11	Slope Drains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SS-12	Streambank Stabilization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED <sup>(3)</sup></b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE.

The BMPs selected for the project are listed below along with an explanation of how they will be incorporated into the project.

- Temporary stockpile of erodible materials

**SS-1 - Scheduling:** The Contractor shall provide a construction schedule indicating the implementation of soil stabilization BMPs prior to the commencement of the construction activities. The project schedule will sequence construction activities with the installation of both soil stabilization and sediment control measures. BMPs will be deployed in a sequence to follow the progress of demolition, grading, and construction.

**SS-2 - Preservation of Property/Preservation of Existing Vegetation:** The Contractor will protect and preserve the existing vegetation outside of the project construction area. Preservation of such vegetation will serve to control erosion and aid in filtering out sediment. The construction schedule will be arranged as much as practicable to leave existing vegetation undisturbed throughout the construction of the project.

### **500.3.3 Sediment Control**

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Sediment controls are structural measures that are intended to complement and enhance the selected soil stabilization (erosion control) measures and reduce sediment discharges from construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary sediment control requirements, temporary sediment control measures required by the contract documents, and other measures selected by the Contractor.

Sediment control BMPs will be installed at all appropriate locations along the site perimeter and at all operational internal inlets to storm drain systems at all times.

Throughout the duration of the project, temporary sediment control materials, equivalent to 10 percent of the materials installed on site, will be maintained on site for implementation in event of predicted rain, or the need for rapid response to failures or emergencies, in conformance with other Caltrans requirements, and as described in the SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Temporary sediment control BMPs are listed by location in the WPCBMPL in Attachment CC and are shown on the WPCDs from Attachment BB. Any details for temporary sediment control BMPs are shown in Attachment BB.

<b>TABLE 500.3.3 TEMPORARY SEDIMENT CONTROL BMPs</b>						
<b>CONSTRUCTION BMP ID NO.(1)</b>	<b>BMP NAME</b>	<b>CONTRACT MIN REQUIRE- MENT(2)</b>	<b>CONTRACT BID ITEM</b>	<b>BMP USED</b>		<b>IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON</b>
				Yes	No	
SC-1	Temporary Silt Fence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-2	Temporary Sediment Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-3	Temporary Sediment Trap/Curb Cutback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-4	Temporary Check Dam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-5	Fiber Rolls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-6	Temporary Gravel Bag Berm/Earthen Berm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-7	Street Sweeping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
SC-8	Temporary Sandbag Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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SC-9	Temporary Straw Bale Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-10	Temporary Drain Inlet Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-11	Compost Stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
SC-12	Flexible Sediment Barrier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED <sup>(3)</sup></b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

Frequent dust control/watering of the project site will be conducted during construction activities to keep the dust generation to a minimum.

SC-5 Fiber Rolls: Fiber rolls will be placed along the perimeter of inactive stockpiles, small DSAs and on slopes, as required.

SC-7 – Street Sweeping: Road sweeping and vacuuming will occur during soil hauling, demolition of existing water facilities, installation of pipe backfill material and as necessary to keep streets clear of tracked materials and debris. The Contractor shall complete street sweeping daily and as needed to keep the project site and adjacent streets clean and free of dust/debris.

### **500.3.4 Tracking Control**

Tracking control BMPs are be implemented to reduce sediment tracking from the construction site onto private or public roads. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary tracking control requirements, temporary tracking control measures required by the contract documents, and other measures selected by the Contractor.

The following tracking control BMP selection table indicates the BMPs that shall be implemented to reduce sediment tracking from the construction site onto private or public roads. Temporary tracking control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for temporary tracking control BMPs are shown in Attachment BB.

<b>TABLE 500.3.4</b>

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<b>TEMPORARY TRACKING CONTROL BMPs</b>						
<b>CONSTRUCTION BMP ID NO.(1)</b>	<b>BMP NAME</b>	<b>CONTRACT MIN REQUIRE- MENT(2)</b>	<b>CONTRACT BID ITEM</b>	<b>BMP USED</b>		<b>IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON</b>
				Yes	No	
SC-7	Street Sweeping	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-1	Temporary Construction Entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-2	Stabilized Construction Roadway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
TC-3	Temporary Entrance / Outlet Tire Wash	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
<b>ALTERNATIVE BMPs USED (3)</b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

•

SC-7 – Street Sweeping: Road sweeping and vacuuming will occur during soil hauling, demolition of existing water facilities, installation of pipe backfill material and as necessary to keep streets clear of tracked materials and debris. The Contractor shall complete street sweeping daily and as needed to keep the project site and adjacent streets clean and free of dust/debris.

TC-1 – Temporary Construction Entrance: The Contractor shall place Temporary Construction Entrance at the staging area as requested by the Owner representative.

TC-3 – Temporary Entrance/Outlet Tire Wash: The Contractor shall place a Temporary Entrance/Outlet Tire Wash at the staging area as requested by the Owner representative.

**500.3.5 Wind Erosion Control**

Wind erosion control BMPs will be implemented to prevent sediment from leaving the construction site. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary wind erosion control requirements, temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

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The following temporary wind erosion control BMP selection table indicates the BMPs that shall be implemented to reduce wind erosion at the construction site. Temporary wind erosion control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for temporary wind erosion control BMPs are shown in Attachment BB.

<b>TABLE 500.3.5 TEMPORARY WIND EROSION CONTROL BMPs</b>						
<b>CONSTRUCTION BMP ID NO.(1)</b>	<b>BMP NAME</b>	<b>CONTRACT MIN REQUIRE- MENT (2)</b>	<b>CONTRACT BID ITEM</b>	<b>BMP USED</b>		<b>IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON</b>
				Yes	No	
WE-1	Wind Erosion Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-1	Temporary Construction Entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
TC-2	Stabilized Construction Roadway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
----	All Soil Stabilization Measures included in Section 500.3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED (3)</b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and narrative explain how the selected BMPs shall be incorporated into the project.

•

Frequent dust control/watering of the project site will be conducted during construction activities to keep the dust generation to a minimum.

**WE-1 – Wind Erosion Control:**

Water shall be periodically applied to disturbed soil areas using water truck within the project limits and at the staging area to control dust generation and maintain optimum moisture content for compaction. Wind erosion control and water conservation practices BMPs will be implemented to provide dust control and prevent discharges from dust control activities and water supply equipment. Water application rates will be minimized as necessary to prevent runoff ponding. Any leakages from water equipment shall be repaired immediately.

During windy conditions (when forecasted or actual wind speeds exceeding 25 mph occur), additional dust control measures shall be implemented to provide sufficient erosion control. The dust control measure shall include covering of stockpiled material and native materials. Stockpiles shall be covered using plastic covers with gravel bags to prevent

wind dispersal of any sediment.

## **500.4 BMP Selection for Construction Site Management**

Construction site management shall consist of controlling potential sources of water pollution before they come in contact with stormwater systems or watercourses. The Contractor shall control material pollution and manage waste and non-stormwater discharges at the construction site by implementing effective handling, storage, use, and disposal practices.

### **500.4.1 Non-Stormwater Site Management**

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the Caltrans Permit or authorized under a separate NPDES permit, shall be prohibited. The selection of non-stormwater BMPs is based on whether construction activities with a potential for non-stormwater discharges will be conducted, as discussed in the Materials Management Plan and in Section 500.4. This project will incorporate SWPPP/WPCP Preparation Manual minimum non-stormwater pollution control requirements, non-stormwater pollution temporary wind erosion control measures required by the contract documents, and other measures selected by the Contractor.

The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to prevent non-stormwater discharges from construction activities conducted at the project site. Non-stormwater pollution control BMPs are listed by location in the WPCBMPL in Attachment CC and shown on the WPCDs from Attachment BB. Any details for non-stormwater pollution control BMPs are shown in Attachment BB.

<b>TABLE 500.4.1</b>						
<b>TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs</b>						
<b>CONSTRUCTION BMP ID NO.(1)</b>	<b>BMP NAME</b>	<b>CONTRACT MIN REQUIRE- MENT(2)</b>	<b>CONTRACT BID ITEM</b>	<b>BMP USED</b>		<b>IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON</b>
				Yes	No	
NS-1	Water Control and Conservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-2	Dewatering(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-3	Paving, Sealing, Sawcutting, and Grinding Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-4	Temporary Stream Crossing (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-5	Clear Water Diversion (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-6	Illegal Connection and Illegal Discharge Detection Reporting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
NS-7	Potable Water / Irrigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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NS-8	Vehicle and Equipment Cleaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-9	Vehicle and Equipment Fueling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-10	Vehicle and Equipment Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-11	Pipe Driving Operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-12	Concrete Curing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-13	Material and Equipment Used Over Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-14	Concrete Finishing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
NS-15	Structure Demolition / Removal Over or Adjacent to Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED<sup>(4)</sup></b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) The BMPs listed above are incidental and do not include operations listed as separated line items in the contract.
- (4) Use of alternative BMPs will require written approval by the RE.

The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

•

**NS-1 Water Control and Conservation / Potable Water and Irrigation:**

Water application rates will be minimized, as required, to prevent runoff and ponding. Water equipment leaks will be repaired immediately. The water truck filling area will be stabilized.

Irrigated areas within the construction limits will be inspected for excess watering.

The exposure of construction materials to precipitation will be minimized. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g., poles, equipment pads, cabinets, conductors, insulators, bricks).

**NS-3 Paving, Sealing, Sawcutting, and Grinding Operations:**

Paving and Grinding Operation BMPs will be implemented to prevent paving materials from being discharged off site.



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Following paving operations, the area will be swept and the entire parking area will be inspected for paving materials.

NS-6 Illegal Connection and Illegal Discharge:

The contractor will monitor and report any illicit/illegal discharge.

**500.4.2 Waste Management and Materials Pollution Control**

An inventory of construction activities, materials, and wastes is provided in Section 500.1.1. The following BMP consideration checklist lists the BMPs that have been selected to control construction site wastes and materials. Locations and details of applicable materials handling and waste management BMPs are shown on the WPCDs from Attachment BB. In the narrative description, a list of waste disposal facilities and the type of waste to be disposed at each facility is also provided. The following list of BMPs and associated narratives explain how the selected BMPs will be incorporated into the project.

<b>TABLE 500.4.2</b>						
<b>TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs</b>						
CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MIN REQUIRE- MENT(2)	CONTRACT BID ITEM	BMP USED		IF A CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				Yes	No	
WM-1	Material Delivery and Storage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-2	Material Use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-3	Stockpile Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-4	Spill Prevention and Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-5	Solid Waste Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-6	Hazardous Waste Management (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-7	Contaminated Soil Management (3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Concrete Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Temporary Concrete Washout (Portable)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-8	Temporary Concrete Washout Facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	

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WM-9	Sanitary/Septic Waste Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="radio"/>	
WM-10	Liquid Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	
<b>ALTERNATIVE BMPs USED (4)</b>						
<input type="radio"/> Yes <input checked="" type="radio"/> No						

**Notes:**

- (1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Manual is a required contract document.
- (2) Minimum requirements are based on the required contract provisions, standard special provisions, plans and specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
- (3) The BMPs listed above are incidental and do not include operations listed as separated line items in the contract.
- (4) Use of alternative BMPs will require written approval by the RE.

**WM-1 & WM-2 Material Delivery, Storage, and Use BMPs:**

In general, BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use. Spill clean-up materials, material safety datasheets, a material inventory, and emergency contact numbers shall be maintained and stored in the contractor's service trucks.

**WM-3 Stockpile Management:**

Stockpile Management shall be implemented to reduce or eliminate pollution of stormwater from stockpiles of soil and paving materials such as Portland Cement Concrete (P.C.C.) rubble, aggregate base, aggregate subbase and pre-mixed aggregate. Plastic covers shall be used.

**WM-4 Spill Prevention and Control:**

Spill Prevention and Control shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. Spill prevention is also discussed above in Material Delivery, Storage and Use BMPs, and below in the following waste management section.

**WM-5 & WM-6 Waste Management:**

Solid Waste Management BMP (WM-5) and Hazardous Waste Management BMP (WM-6) shall be implemented to minimize stormwater contact with waste materials and prevent waste discharges. Solid wastes shall be loaded directly onto trucks for offsite disposal. Solid waste, including rubble stockpiles, shall be removed and disposed of offsite daily. Hazardous wastes shall be appropriately and clearly marked containers and segregated from other non-waste materials. Waste shall be stored in sealed containers constructed of a suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179. All hazardous waste shall be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.

**WM-8 Temporary Concrete Washout:**

The discharges from concrete washout will consist of rinse water and residual concrete. Concrete pours shall not be conducted during or immediately prior to rainfall events. Temporary Concrete Washout BMP shall be implemented onsite or offsite in a designated area.

**WM-9 Sanitary and Septic Wastes:**

The contractor shall implement Sanitary and Septic Waste Management BMP. Portable toilets shall be located and maintained on the project site for the duration of the project. Weekly maintenance shall be implemented, and wastes shall be disposed of offsite. The toilets shall be located away from concentrated flow paths and traffic flow. Portable restroom facilities shall be secured to the ground to avoid tip-overs.

## **500.5 Water Pollution Control Drawings**

The WPCDs are the component of the project SWPPP that show the BMPs, by project phase/stage, that are necessary for the project to be in compliance with the CGP. The construction activity phases used in this SWPPP are the preliminary phase, grading phase, highway construction phase, and the highway planting / erosion control establishment phase. These phases are defined below.

### **Preliminary Phase (Pre-Construction Phase – Part of the Grading Phase)**

Includes rough grading/or disking, clearing and grubbing operations, or any soil disturbance prior to mass grading.

### **Grading Phase**

Includes reconfiguring the topography for the highway, including excavation for roadway (e.g., necessary blasting of hard rock), highway embankment construction (fills); mass grading, and stockpiling of select material for capping operations.

### **Highway Construction Phase**

Encompasses both highway and structure construction. Highway construction includes final roadway excavation, placement of base materials and highway paving, finish grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm drain systems and/or other drainage improvements, highway lighting, traffic signals and/or other highway electrical work, guardrail, concrete barriers, sign installation, pavement markers, traffic striping and pavement markings. Structure construction includes structure footings, bridges, retaining walls, major culverts, overhead sign structures and buildings.

### **Highway Planting / Erosion Control Establishment Phase**

Includes clearing and grubbing operations, soil preparation (grading, incorporation of soil amendments, and placement of topsoil), irrigation (trenching, installation and trench backfilling), minor grading (top dressing and fine grading of lawn and ground cover areas), planting (seeding and planting of vegetation), mulching (application of wood chips or other mulches) and plant establishment (weeding, plant replacement, and, if needed, fertilizer application, irrigation maintenance, and reapplication of mulch). Erosion control includes placement of permanent erosion control materials and maintenance of temporary sediment controls during the erosion control establishment period.

The WPCDs provide field staff with the information on where to install BMPs so that they are effective. The WPCDs, WPCBML and Water Pollution Control Schedule provide the necessary tools for a Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCD cover sheet(s) shall include a listing of the BMPs that will be used along with the associated BMP symbols used on the WPCDs.

WPCDs are provided for all areas that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within the Caltrans rights-of-way

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The WPCDs shall show the construction project site in detail, including:

- the construction site perimeter;
- geographic features within or immediately adjacent to the site; include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean;
- site topography before and after construction; include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination; and
- permanent (post-construction) BMPs.

The WPCDs shall show the following site information:

- discharge points from the project to off-site storm drain systems or receiving waters;
- tributary areas and drainage patterns across the project area (show using flow arrows) into each on-site stormwater inlet or receiving water;
- tributary areas and drainage patterns to each on-site stormwater inlet, receiving water or discharge point;
- off-site tributary drainage areas that generate run-on to the project;
- temporary on-site drainage(s) to carry concentrated flows;
- drainage patterns and slopes anticipated after major grading activities are completed;
- outlines of all areas of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project;
- outlines of all areas of planned soil disturbance (disturbed soil areas, DSAs);
- known location(s) of contaminated or hazardous soils; and
- any potential non-stormwater discharges and activities, such as dewatering operations, concrete saw-cutting or coring, pressure washing, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning; if operations can't be located on the WPCDs, a narrative description should be provided.

The WPCDs show proposed locations of all construction site BMPs. Additional detail drawings are provided if necessary to convey site-specific BMP configurations. The WPCDs shall show construction site BMPs including the following:

- temporary soil stabilization and temporary sediment control BMPs that will be used during construction; any temporary on-site drainage(s) to carry concentrated flows, BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect stormwater inlets;
- construction entrances used for site ingress and egress points and any proposed temporary construction roads;
- BMPs to mitigate or eliminate non-stormwater discharges;
- BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal; and
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.

The WPCDs can be found in Attachment BB of the SWPPP.

## **500.6 Water Pollution Control BMP List**

The Water Pollution Control Best Management Practices List (WPCBMPL) provides, by location and project phase/stage, the BMPs necessary for the project to be in compliance with the CGP. The WPCBMPL provides field staff both with a list of necessary BMPs and with an estimated quantity for each BMP by location and phase/stage of the project. The construction activity phases are typically the Preliminary Phase, Grading Phase, Highway Construction Phase, and the Highway Planting / Erosion Control Establishment Phase. The construction activity phases are defined in Section 500.5.

The WPCBMPL, water pollution control drawings and water pollution control schedule provide the tools necessary for the Contractor to plan and implement BMPs to meet the requirements of the project SWPPP. The BMPs listed on the WPCBMPL are the base line for site inspections and visual monitoring.

The WPCBMPL cover sheet includes a list of all BMPs to be used on the project based on Section 500 Determination of Construction Site Best Management Practices.

The names and number of locations listed on the WPCBMPL were established so that field staff and inspectors can easily identify where BMPs need to be located. The WPCBMPL includes all locations that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within Caltrans rights-of-way.

Necessary additional information to convey site-specific BMP configurations or BMP modifications are noted on the WPCBMPL.

All construction site BMPs are listed on the WPCBMPL including the following:

- temporary soil stabilization and temporary sediment control BMPs that will be used during construction; include temporary on-site drainage(s) to carry concentrated flows
- BMPs implemented to divert off-site drainage around or through the construction site, and BMPs that protect stormwater inlets
- BMPs to mitigate or eliminate non-stormwater discharges BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning
- permanent BMPs that are a component of the project SWPPP

The WPCBMPL can be found in Attachment CC of the SWPPP.

## **500.7 Water Pollution Control Schedule**

The Water Pollution Control Schedule (WPCS) is the component of the project SWPPP that shows the timeline for when BMPs will be installed so that the project is in compliance with the CGP. The WPCS provides field staff with the information necessary to plan for adequate materials and crews to install BMPs at the right time so that they are effective. The WPCS, WPCBMPL, and WPCDs provide the necessary tools for the Contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

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The WPCS shall contain an adequate level of detail to show major activities sequenced with the implementation of construction site BMPs, including:

- project start and finish dates, including each stage of the project
- SWPPP review and approval
- annual certifications
- mobilization dates
- mass clearing and grubbing/roadside clearing dates
- major grading/excavation dates
- dates named in other permits such as TRPA, Fish and Game and Army Corps of Engineers Permits
- dates for submittal of SWPPP amendments as required in the contract specifications

The WPCS shall show by location the dates for the deployment of:

- temporary soil stabilization BMPs
- temporary sediment control BMPs
- wind erosion control BMPs
- tracking control BMPs
- non-stormwater BMPs
- waste management and materials pollution control BMPs

The WPCS shall include:

- paving, saw-cutting, and any other pavement-related operations;
- major planned stockpiling operations;
- dates for other significant long-term operations or activities that may cause non-stormwater discharges, such as dewatering, grinding, etc; and
- final stabilization activities for each disturbed soil area of the project.

The WPCS shall be updated quarterly and the quarterly updates shall be filed in SWPPP File Category 20.03: Water Pollution Control Schedule Updates.

The Water Pollution Control Schedule can be found in Attachment DD of the SWPPP.

# **SECTION 600**

## **PROJECT SITE IMPLEMENTATION PROGRAM**

### ***600.1 Water Pollution Control (WPC) Manager Responsibilities***

The WPC Manager shall have primary responsibility and authority to implement the SWPPP and ensure the project is in compliance with the CGP. The WPC Manager is responsible for implementing the SWPPP and amending the SWPPP when any of the conditions specified in Section 100.3 are met. The Contractor has assigned authority to the WPC Manager to mobilize crews and subcontractors, as necessary, for SWPPP and CGP compliance. The WPC Manager will be available at all times throughout duration of the project.

Duties of the Contractor's WPC Manager include but are not limited to the following

- ensuring full compliance with the SWPPP and the CGP
- implementing all elements of the SWPPP, including but not limited to implementing:
  - prompt and effective erosion and sediment control measures
  - all non-stormwater management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); performing general site cleanup; cleaning vehicles and equipment, performing fueling and maintenance activities; providing spill control; ensuring that no materials other than stormwater are discharged in quantities that will have an adverse effect on receiving waters or storm drain systems, etc.
- overseeing and ensuring that the following site inspections and visual site monitoring are conducted:
  - daily required BMP inspections
  - weekly routine stormwater site BMP inspections
  - quarterly non-stormwater site inspections
  - pre-storm inspections prior to forecasted storm events
  - daily inspections during extended forecasted storm events
  - post-storm inspections for qualifying rain events
- mobilizing crews to repair, replace, and/or implement additional BMPs due to deficiencies, failures or other shortcomings identified during inspections, to be completed within 24 hours of identification in compliance with Standard Specification 13-1.03A (the contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews), unless a longer period is authorized.
- coordinating with the RE to assure that if design changes to BMPs are required due to deficiencies, failures or other shortcomings identified during inspections, the changes are completed as soon as possible and the SWPPP is revised accordingly
- monitoring NWS Forecast Office forecasts for both forecasted storm events and qualifying rain events; these events are defined as follows:
  - a forecasted storm event is defined as a 50% or greater likelihood that 0.10 inch or more of precipitation will fall within a 24-hour period

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- a qualifying rain event is defined as a rain event that may produce or has produced ½ inch or greater of precipitation at the time of discharge, with a 48-hour dry period between events
  - monitoring weather at the project site
  - preparing and implementing qualifying rain event sampling and analysis plans
  - preparing and implementing Rain Event Action Plans for forecasted storm events
  - mobilizing crews immediately, in the event of NAL exceedances, to repair existing BMPs and/or implement additional BMPs (the Contractor’s WPC Manager shall be assigned authority by the Contractor to mobilize crews),
  - coordinating with the RE in the event of NAL exceedances to assure that any SWPPP revisions (corrective actions) are made immediately, either to prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs, so that the project complies with the SWPPP, the CGP and approved plans at all times,
  - submitting NAL exceedances reports to the RE
  - submitting test results for stormwater samples to the RE
  - preparing amendments to the SWPPP when required
  - preparing contractor’s SWPPP Annual Compliance Certification
  - preparing the Stormwater Annual Reports
  - ensuring elimination of all unauthorized discharges
  - preparing and submitting Notice of Discharge reports to the RE
  - preparing and submitting reports of illegal connections or illicit discharges to the RE

### 600.2 Site Inspections

Stormwater site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the CGP. Project site visual monitoring requirements are covered in Section 700 Construction Site Monitoring Program. Project site inspections of stormwater BMPs are conducted to identify and record:

- that BMPs are properly installed
- what BMPs need maintenance to operate effectively
- what BMPs have failed
- what BMPs could fail to operate as intended.

Routine stormwater site inspections shall be conducted by the contractor’s WPC Manager or other 24-hour trained staff at the following minimum frequencies:

- daily inspections of:
  - storage areas for hazardous materials and waste
  - hazardous waste disposal and transporting activities



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- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.
- demolition sites within 50 feet of storm drain systems and receiving waters
- pile driving areas for leaks and spills if pile driving occurs daily
- temporary concrete washouts if concrete work occurs daily
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
- dewatering work if dewatering work occurs daily
- temporary active treatment system if temporary active treatment system activities occur daily
- work over water if work over water occurs daily
- daily inspections for projects within the Lake Tahoe Hydrologic Unit
- daily inspections of access roadways
- weekly inspection of site BMPs

Stormwater site inspections shall be documented on CEM-2030 Stormwater Site Inspection Report, in Appendix G. Completed stormwater inspection reports shall be submitted to the RE within 24 hours after completion of the inspection. Copies of completed inspection reports will be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports,

Deficiencies identified during site inspections and correction of deficiencies will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective Action Summary forms shall be submitted to the RE when corrections are completed but must be submitted within five (5) days after completion of the site inspection. Completed Stormwater Site Inspection Report Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding Stormwater Site Inspection Report that generated the need for the CEM-2035 Stormwater Corrective Actions Summary

### **600.3 Weather Forecast Monitoring**

The WPC Manager shall have primary responsibility to monitor the National Weather Service Forecast Office for forecasted precipitation based on project site location. Precipitation forecast information shall be obtained from the National Weather Service Forecast Office accessible at: <http://www.srh.noaa.gov/>.

The project site location to be used for obtaining forecast from National Weather Forecast Office website is:

125 West Alcott Road, Niland, CA 92257

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The WPC Manager shall monitor the weather forecast on a daily basis for predicted precipitation within the following 96 hours. The WPC Manager shall monitor the forecast for the next 24, 48, 72 and 96 hours to determine if the forecast for precipitation is 50 percent or greater for any 6-hour period. If the forecast for precipitation is 50 percent or greater, the WPC Manager shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the forecasted storm event and record the information. Weather forecast monitoring shall be recorded be filed in File Category 20.40: Weather Monitoring Logs.

When the forecast for precipitation is 50 percent or greater and the forecasted amount of precipitation is 0.10 inch or more for any 24-hour period within the next 48 hours, the WPC Manager shall perform a pre-storm site inspection and ensure that the site is prepared for the likely forecasted storm event.

For Risk Level 2 and 3 the WPC Manager will prepare a Rain Event Action Plan for forecasted storm events.

Forecasted storm event site preparation shall include, but is not limited to, the installation of soil stabilization and sediment BMPs on active disturbed soil areas and stockpiles.

### **600.4 Weather Monitoring**

The WPC Manager shall have primary responsibility to monitor weather at the project site. The WPC Manager, on a daily basis, shall monitor the weather and record the weather conditions.

When there is precipitation, the WPC Manager shall ensure that storm precipitation data is obtained from the project site rain gauge. Precipitation monitoring will include recording the time, amount of precipitation measured in the project site rain gauge, amount of precipitation within a 24-hour period, and total cumulative amount of precipitation for the forecasted storm event.

If no pre-storm visual site monitoring was performed, and the amount of precipitation for any 24-hour period is 0.10 inch or greater, the WPC Manager will implement during storm visual site monitoring, as discussed in Section 700.1.

When a forecasted storm event was not forecasted to be a qualifying rain event, but the measured cumulative amount of precipitation for the storm event and the expected severity of the continuing storm event results in ½ inch or more of precipitation, the WPC Manager will prepare to sample.

Weather monitoring will be conducted daily. Weather monitoring documentation shall be kept in File Category 20.40: Weather Monitoring Logs.

### **600.5 Best Management Practices Status Report**

The WPC Manager shall prepare a monthly status report of the water pollution control BMPs (site BMPs) installed on the project site. The monthly BMP status report will be based on the progress of the work and the WPCBMPL for the project, with any additional BMPs the WPC Manager has determined are necessary based on the stage of construction and construction activities.

Because the SWPPP, including the WPCBMPL and WPCDs, are based on the entire project site and all construction activities, the monthly BMP status report should be a “snapshot” of which BMPs are deployed on the project site, so a project inspector or reviewer can easily determine what could be expected to be seen on the project site that month. The monthly status report will be used by stormwater inspectors and contractor personnel to ensure SWPPP compliance.

The weekly status report will be used to ensure that weekly training meetings cover BMPs that are required for work activities during the week. The weekly status report will be provided to regulatory agency staff who visit the project site to indicate which BMPs should be in place and which are scheduled to be implemented during the coming week.

The monthly status of stormwater BMPs will be documented on CEM-2034 Stormwater Best Management Practices and Materials Inventory Report form, in Appendix H. Completed monthly status reports shall be submitted to the RE 48 hours prior to the beginning of the work week. Copies of the completed reports will be kept in SWPPP File Category 20.34: Monthly Best Management Practices and Materials Inventory Reports.

## **600.6 Rain Event Action Plans (REAP)**

REAPs will be prepared by the WPC Manager when there is a forecasted storm event. A forecasted storm event is any weather pattern that is forecasted to have a 50 percent or greater probability of producing precipitation of 0.10 inch or more within any 24-hour period at the project site location. The WPC Manager will prepare the REAP for the forecasted storm event based on the current construction activity phase of the project. For REAPs, the construction activity phases are the Highway Construction Phase, Highway Planting / Erosion Control Establishment Phase or Inactive Project Phase. The construction activity phases are defined in Section 500.5.

When the NWS forecast for 72 hours and greater predicts a forecasted storm event, the WPC Manager will prepare a REAP using the REAP form appropriate to the current project stage. REAP forms are available in Appendix L. Prepared REAPs shall be submitted to the RE at least 48 hours prior to a forecasted storm event. If the NWS forecast changes and a storm event is forecasted to occur within 24-72 hours then a REAP must be prepared. If the NWS forecast changes and a storm event is forecasted to occur within the next 24 hours a REAP will not be prepared and the WPC Manager will take immediate actions to ready the project site for the forecasted storm event.

The WPC Manager shall implement a REAP within the 48 hours prior to the forecasted storm event. A copy of the REAP shall be available on the job site at least 48 hours prior to the forecasted storm event. Copies of REAPs will be maintained in SWPPP File Category 20.45: Rain Event Action Plans in reverse chronologic order.

# **SECTION 700**

## **CONSTRUCTION SITE MONITORING PROGRAM**

### ***700.1 Site Visual Monitoring Inspection***

This Construction Site Monitoring Program includes conducting site visual monitoring inspections of the project site to address the following objectives:

- determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives
- determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges
- determine whether BMPs included in the REAP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges
- demonstrate that the site is in compliance with the discharge prohibitions and applicable NALs and Receiving Water Monitor Triggers of the CGP
- determine whether immediate corrective actions, additional BMP implementation, or SWPPP amendments are necessary to reduce pollutants in stormwater and authorized non-stormwater discharges
- demonstrate that the site is in compliance with the discharge prohibitions
- document the presence or evidence of any non-stormwater discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source, if applicable, and the response taken to eliminate unauthorized non-stormwater discharges and to reduce or prevent pollutants from contacting non-stormwater discharges

#### ***700.1.1 Visual Monitoring Locations***

##### **Locations of Visual Monitoring Prior To A Storm Event**

Visual monitoring (a pre-storm inspection) of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, 96 hours, and the amount of precipitation forecasted for any 24-hour period is 0.10 inch or greater. Within 48 hours of a forecasted storm event, a stormwater visual monitoring site inspection shall be performed and shall include observations of:

- stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources
- BMPs to identify whether they have been properly implemented
- any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard

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2 drainage area(s) on the project site and the Contractor’s yard, staging areas, and storage areas have been identified as required forecasted storm event visual observation location(s), according to Section I.3.e of Attachments C, D, and E of the CGP. Drainage area(s) are shown on the WPCDs in Attachment BB and are listed by drainage area location number and location description in Table 700.1.1.1: Drainage Areas.

<b>TABLE 700.1.1.1 DRAINAGE AREAS</b>	
<b>Drainage Area No.</b>	<b>Location</b>
DA-01	See Attachment BB.
DA-02	See Attachment BB.

4 stormwater storage or containment area(s) are located on the project site. These stormwater storage and containment area(s) have been identified as required forecasted storm event visual observation location(s). Stormwater storage or containment area(s) are shown on the WPCDs from Attachment BB and are listed by storage or containment area location number and location description in Table 700.1.1.2: Stormwater Storage and Containment Areas.

<b>TABLE 700.1.1.2 STORMWATER STORAGE AND CONTAINMENT AREAS</b>	
<b>Location No.</b>	<b>Location</b>
SA-01	See Attachment BB.
SA-02	See Attachment BB.
SA-03	See Attachment BB.
SA-04	See Attachment BB.

**Locations of Visual Monitoring during Extended Forecasted Storm Events and within 48 Hours After a Qualifying Rain Event**

During any extended forecasted storm events and within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation), a stormwater visual monitoring site inspection is required to observe:

- stormwater discharges at all discharge locations
- BMPs to identify and record those that need maintenance to operate effectively, those that have failed, and those that could fail to operate as intended
- the discharge of stored or contained stormwater

0 discharge location(s) are located on the project site. These stormwater discharge location(s) have been identified as required visual observation location(s). Stormwater discharge location(s) are shown on the WPCDs in Attachment BB and are listed in Table 700.1.1.3: Stormwater Discharge Locations.

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**TABLE 700.1.1.3  
STORMWATER DISCHARGE LOCATIONS**

<b>Unique Sampling Location Identifier</b>	<b>Location</b>
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BMP locations shown on the WPCDs in Attachment BB and are listed on the WPCBMPL in Attachment CC.

4 stormwater storage or containment area(s) are located on the project site. Stormwater storage or containment area(s) are shown on the WPCDs in Attachment BB and are listed on Table 700.1.1.2: Stormwater Storage and Containment Areas.

**Locations of Visual Monitoring for Non-Stormwater Discharges**

A visual monitoring site inspection for non-stormwater discharges requires that each drainage area be observed for the presence of or indications of prior unauthorized and authorized non-stormwater discharges.

2 drainage area(s) are located on the project site and in the contractor’s yard, staging areas, and storage areas that have been identified as observation location(s) for non-stormwater discharges. Drainage area(s) are shown on the WPCDs in Attachment BB and are listed in Table 700.1.1.1: Drainage Areas.

**700.1.2 Visual Monitoring Schedule**

On a daily basis, contractor personnel will visual monitor the all immediate access roadways.

On a daily basis contractor personnel will visually monitor BMPs during applicable activities:

- storage areas for hazardous materials and waste
- hazardous waste disposal and transporting activities
- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.
- demolition sites within 50 feet of storm drain systems and receiving waters
- pile driving areas for leaks and spills if pile driving occurs daily
- temporary concrete washouts if concrete work occurs daily
- paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
- dewatering work if dewatering work occurs daily
- temporary active treatment system if temporary active treatment system activities occur daily

- work over water if work over water occurs daily

Stormwater site visual monitoring inspections shall be conducted at a minimum:

- within 48 hours prior to a forecasted storm event (any weather pattern that is forecasted to have a 50 percent or greater probability of producing 0.1 inches or more of precipitation in the project area within a 24 period)
- at 24-hour intervals during any extended forecasted storm event
- within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation)

Non-stormwater discharge site visual monitoring inspections shall be conducted, at a minimum, during each of the following periods: January-March, April-June, July-September, and October-December.

If visual monitoring of the site for stormwater is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the site inspector shall document the conditions that prevented the inspection. The documentation of the site visual monitoring inspection shall be filed in SWPPP File Category 20.33: Site Visual Monitoring Inspection Reports.

### **700.1.3 Visual Monitoring Procedures**

Site visual monitoring inspections shall be overseen by the contractor's WPC Manager. Site visual monitoring will be conducted by the WPC Manager, appointed QSP or stormwater inspector.

The name(s) and contact number(s) of the site visual monitoring inspection personnel are listed below and their training qualifications are provided in Attachment E:

- |                        |                |
|------------------------|----------------|
| • Assigned Inspector:  | Contact phone: |
| • Alternate Inspector: | Contact phone: |

#### **Daily Access Road Monitoring**

All immediate access roads must be inspected on a daily basis. Any sediment or other construction-related materials deposited on the roads must be removed daily (or more frequently when necessary) and prior to any rain event.

#### **Daily BMP Monitoring During Applicable Activities**

Standard Specification 13-1.03C requires that the contractor personnel on the site shall inspect the following activities on a daily basis:

- storage areas for hazardous materials and waste
- hazardous waste disposal and transporting activities
- hazardous material delivery and storage activities
- vehicle and equipment cleaning facilities if vehicle and equipment cleaning occurs daily
- vehicle and equipment maintenance and fueling areas if vehicle and equipment maintenance and fueling occurs daily
- vehicles and equipment at the job site to verify that operators are inspecting vehicles and equipment each day of use.

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- demolition sites within 50 feet of storm drain systems and receiving waters
  - pile driving areas for leaks and spills if pile driving occurs daily
  - temporary concrete washouts if concrete work occurs daily
  - paved roads at job site access points for street sweeping if earthwork and other sediment or debris generating activities occur daily
  - dewatering work if dewatering work occurs daily
  - temporary active treatment system if temporary active treatment system activities occur daily
  - work over water if work over water occurs daily

**Discharge Monitoring**

During inspections, the contractor personnel shall be observant of any discharges or evidence of a prior discharge that could cause adverse conditions in the storm sewer system or the receiving water. If a discharge or evidence of a prior discharge is discovered by the contractor, the WPC Manager or contractor shall immediately notify the RE, and shall file a written report on the CEM-2061 Notice of Discharge form with the RE within 24 hours of the discharge or discovery of evidence of a prior discharge. Corrective measures shall be implemented immediately following the discovery of the discharge. Form CEM-2061 for reporting discharges is available in Appendix K.

Caltrans will notify the owner/operator of the MS4 and the RWQCB as soon as practicable, but no later than 24 hours after onset of or threat of discharge which can cause adverse conditions to the storm sewer system or the receiving water. This applies to any such discharge that is not covered by California Emergency Management Agency procedures for discharges from a highway to a storm sewer system subject to a MS4 permit.

Discharges requiring reporting include:

- stormwater from a DSA discharged to a waterway without treatment by an effective combination of temporary erosion and sediment control BMPs
- non-stormwater, except conditionally exempted discharges, discharged to a waterway or a storm drain system, without treatment by an approved control measure (BMP)
- stormwater discharged to a waterway or a storm drain system where the control measures (BMPs) have been overwhelmed or not properly maintained or installed
- discharge of hazardous substances above the reportable quantities, as provided in 40 CFR 110.3, 117.3 or 302.4
- stormwater runoff containing hazardous substances from spills discharged to a waterway or storm drain system

The initial notification to the RWQCB of a discharge or threat of discharge will be made immediately for any discharge that can cause adverse conditions to the storm sewer system or the receiving water, with a follow-up in writing within 24 hours. Adverse conditions include, but are not limited to, serious violations or serious threatened violations of Waste Discharge Requirements (WDRs), significant spills of petroleum products or toxic chemicals, or serious damage to control facilities that could affect compliance. Caltrans shall perform follow-up monitoring of major spills and/or perform confirmation sampling to ensure that threats to waters of the U.S. have been eliminated as determined by the local RWQCB.

**Weekly BMP Monitoring**

Weekly monitoring is required to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. The weekly BMP monitoring shall include observations of:



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- all stormwater storage and containment areas identified in Table 700.1.1.2 to detect leaks and ensure maintenance of adequate freeboard
- all BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced in the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented within 24 hours.

### **Visual Monitoring Prior To A Forecasted Storm Event**

Visual monitoring of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, 72, or 96 hours and the amount of precipitation forecasted for any 24-hour period during the storm event is 0.10 inch or greater within a 24-hour period. Site visual monitoring shall be conducted within 48 hours prior to a forecasted storm event. The pre-storm site visual monitoring shall include observations of:

- all drainage areas identified in Table 700.1.1.1 to identify any spills, leaks, or uncontrolled pollutant sources;
- all stormwater storage and containment areas identified in Table 700.1.1.2 to detect leaks and ensure maintenance of adequate freeboard
- all BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced in the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented within 24 hours and prior to the forecasted storm event.

Any corrective actions identified by a pre-storm visual monitoring site inspection shall be included in the REAP for the forecasted storm event.

### **Visual Monitoring during Extended Forecasted Storm Events**

Stormwater visual monitoring site inspections shall be conducted at least once each 24-hour period during any extended forecasted storm events. During any extended forecasted storm event, the site visual monitoring inspector shall visually observe:

- stormwater discharges at all discharge locations (Table 700.1.1.3)
- all stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge; stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, shall be observed prior to the discharge during working hours

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

During any forecasted storm event, stormwater visual monitoring site inspections will include the observation of all site BMPs for:

- proper installation
- achievement of maintenance requirements

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- possible failure
- BMPs that could fail to operate as intended
- effectiveness, so that design changes can be implemented as soon as feasible if needed

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes.

### **Visual Monitoring Within 48 Hours after a Qualifying Rain Event**

Site visual monitoring post-qualifying rain events shall be conducted within 48 hours after the qualifying rain event. The post-storm site visual monitoring inspection shall include observations of:

- discharges of stormwater that have not been processed by a BMP or evidence of stormwater that has not been processed by a BMP at all discharge locations
- evidence of a breach at stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge; stored or contained stormwater that will likely discharge after working hours, due to anticipated precipitation, shall be observed prior to the discharge during working hours

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Post-qualifying rain event stormwater visual monitoring site inspections will include observation of all site BMPs to determine if BMPs have failed to operate as intended because of:

- improper installation
- lack of maintenance
- lack of effectiveness

Observations of the site and any recommended corrective actions will be documented in the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on the stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary, necessary implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes.

### **Visual Monitoring of Non-Stormwater Discharges**

For non-stormwater site visual monitoring, each drainage area will be monitored quarterly for the presence or prior indications of unauthorized and authorized non-stormwater discharges, and their sources. The presence or absence of non-stormwater discharges based on site observations will be documented in the CEM-2030 Stormwater Site Inspection Report. Documentation of observed non-stormwater discharges will include presence or absence of floating and suspended materials, sheens on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Site observations of the site and any recommended corrective actions will be documented. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and, if deemed necessary implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). If BMPs require design changes, the changes shall be implemented and the SWPPP shall be amended to include the changes. Corrective actions shall be documented in the CEM-2035 Stormwater Corrective Actions Summary. Any photographs used to document observations will be referenced in the CEM-2030 Stormwater Site Inspection Report.

### **700.1.4 Visual Monitoring Follow-up and Tracking Procedures**

For deficiencies identified during visual monitoring (site inspections), the required repairs or maintenance of BMPs shall begin and be completed as soon as possible, while taking into consideration worker safety. For deficiencies identified during visual site inspections that require design changes, including additional BMPs, the implementation, as required by Standard Specification 13-1.03A, will begin within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter). When design changes to BMPs are required, the SWPPP shall be amended, including the WCBMPL and WPCDs. If NALs are exceeded, corrective actions shall be approved by the WPC Manager and implemented immediately.

Deficiencies identified on site inspection reports, as well as corrections of deficiencies, will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective action summaries shall be submitted to the RE when corrections are completed, but must be submitted within five (5) days of a site inspection.

### **700.1.5 Data Management and Reporting**

The results of site visual monitoring (pre-storm, during storm, post-storm, and quarterly inspections) shall be recorded on the CEM-2030 Stormwater Site Inspection Report, in Appendix G. A copy of each report shall be kept in SWPPP File Category 20.33.

All reports shall be provided to the RE within 24 hours of the site inspection.

Deficiencies identified during visual monitoring (site inspections) and correction of deficiencies will be tracked on the CEM-2035 Stormwater Corrective Actions Summary, in Appendix I. Corrective Action Summary forms shall be submitted to the RE when corrections are completed, but must be submitted within five (5) days of the site inspection. Completed Stormwater Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding inspection report and shall be kept in the SWPPP Category 20.33.

If a discharge or evidence of a prior discharge that could cause adverse condition in the storm sewer or the receiving water is discovered by the Contractor, the WPC Manager or Contractor shall immediately notify the RE, and no more than 6 hours after discovery, and will file a written report to the RE within 24 hours of the discovery of evidence of a prior discharge. The written report to the RE will contain:

- the date, time, location, and type of unauthorized discharge;
- The nature of the operation that caused the discharge;
- An initial assessment of any impacts caused by the discharge;
- the BMPs deployed before the discharge;

- the date of deployment and type of BMPs deployed after the discharge, including additional measures installed or planned to reduce or prevent re-occurrence
- steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge form, in Appendix K. Completed Notice of Discharge reports shall be submitted to the RE within 24 hours of discovery of evidence of a discharge. Copies of the Notice of Discharge reports will be kept in SWPPP File Category 20.61: Notice of Discharge Reports.

## **700.2 Sampling and Analysis Plans**

### **700.2.1 General SAP**

A sampling and analysis plan (SAP) describes how samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be performed to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols). Therefore, a SAP shall include the components listed below.

1. Scope of Monitoring Activities
2. Monitoring Preparation
3. Monitoring Strategy
4. Sample Collection and Handling
5. Sampling Analysis
6. Quality Control and Assurance
7. Data Management and Reporting
8. Data Evaluation
9. Change of Conditions

This SWPPP contains a non-visible pollutants SAP. The SWPPP may also contain four additional specific SAPS based on the project risk level, project dewatering requirements, RWQCB sampling and analysis requirements, and a SAP for monitoring an active treatment system.

#### **700.2.1.1 Scope of Monitoring Activities**

For specific details with regard to monitoring activities, refer to the specific SAP identified below.

- Non-visible Pollutants (Section 700.2.2.1)
- Non-Stormwater Discharges (Section 700.2.3.1)
- Stormwater pH and Turbidity (Section 700.2.4.1)
- Monitoring required by the Regional Board (Section 700.2.5.1)
- Monitoring for Active Treatment Systems (ATS) (Section 700.2.6.1)

### **700.2.1.2 Monitoring Preparation**

To ensure an effective construction site monitoring and reporting program, the following monitoring preparation activities are required:

- identifying qualified sampling personnel
- ensuring the availability of an adequate quantity of monitoring supplies
- ensuring the availability of field instruments; field instruments must be properly maintained and calibrated prior to sampling events
- identifying a qualified testing laboratory that is capable of performing stormwater and non-stormwater analysis for those constituents that must be tested in a laboratory

#### **700.2.1.2.1 Qualified Sampling Personnel**

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring Program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).

- Stormwater sampling and field analysis will be performed by the following primary and alternative stormwater samplers:

- 

The primary stormwater sampler has received the following stormwater sampling training:

- 

The primary stormwater sampler has the following stormwater sampling experience:

- 

The alternate stormwater sampler has received the following stormwater sampling training:

- 

The alternate stormwater sampler has the following stormwater sampling experience:

- 

Training records of designated contractor sampling personnel are provided in Attachment D, Contractor Personnel Stormwater Training.

Safety practices for sample collection will be in accordance with the .

#### **700.2.1.2.2 Monitoring Supplies**

#### **700.2.1.2.3 Field Instruments**

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The field instrument(s) shown in Table 700.2.1.2.3: Field Instruments will be used to analyze the constituents shown:

<b>TABLE 700.2.1.2.3 FIELD INSTRUMENTS</b>	
<b>Field Instrument</b>	<b>Constituent</b>

The instrument(s) shall be maintained in accordance with manufacturer’s instructions.

The instrument(s) shall be calibrated before each sampling and analysis event.

A Standard Operating Procedure (SOP) for calibration and maintenance of field instruments shall be implemented based on the meter manufacturer’s instructions. A copy of the manufacturer’s instructions shall be attached to the SOP so that they are readily available.

Maintenance and calibration records shall be maintained in SWPPP File Category 20.55: Field Testing Equipment Maintenance and Calibration Records.

#### **700.2.1.2.4 Testing Laboratory**

Samples collected on the project site that require laboratory testing will be tested by a laboratory certified by the State Department of Health Services. Samples collected on the project site will be analyzed by:

Laboratory Name:

Address:

Contact Name:

Title:

Phone Number:

Emergency Phone Number (24/7):

Email Address:

#### **700.2.1.3 Monitoring Strategy**

The monitoring strategy includes identifying analytical constituents, potential sampling locations, identification of actual sampling locations, and sampling schedule,

##### **700.2.1.3.1 Analytical Constituents**

Stormwater and non-stormwater discharges shall be monitored for the analytical constituents specified in the specific SAP(s) in this SWPPP.

##### **700.2.1.3.2 Potential Sampling Locations**

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Potential sampling locations must be representative of the stormwater and non-stormwater discharges from the construction site. Existing conditions and associated construction activities within each drainage area form the basis for determining representative stormwater sampling locations.

Project drainage areas and potential sampling locations have been determined by:

- reviewing project plans
- visiting project site
- reviewing topography maps

The WPCDs show the demarcation of all drainage areas that are either:

- within the project site
- cover part of the project site

The QSD must identify potential sampling locations where concentrated run-off:

- leaves the Caltrans right-of-way
- drains into an MS4
- discharges into a receiving water

Potential run-on sampling locations were determined where concentrated run-on:

- enters the right-of-way
- combines with the stormwater on site and then discharges into an MS4, including the location(s) of discharge into the MS4

The following locations were determined when runoff discharges directly into receiving water bodies:

- the discharge location(s) into the receiving water
- a potential sampling location upstream of all discharge locations
- a potential sampling location downstream from all discharge location(s) into the receiving water.

Necessary potential sampling locations were determined when:

- there are potential sources of non-visible pollutants, as discussed in Section 500.1, and discharge locations are downgradient
- run-on locations are present that may contribute non-visible pollutants
- there are potential non-stormwater discharges and corresponding discharge locations are downgradient
- there are proposed dewatering construction activities

If an ATS is used on site, then sample locations must be included in Section 700.2.6.

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Potential stormwater and non-stormwater sampling locations must be shown on the WPCDs in Attachment BB and listed in Attachment EE: Stormwater Sample Locations. The QSD has identified each of the potential sampling locations with a unique sample location identification code, as shown below. The identification code must start with a number and must be different for each location. If the construction site lies in a west-to-east orientation, starting with one (01) from the east, the potential sampling locations shall be numbered toward the west. If the construction site lies in a south-to-north orientation, the potential sampling locations shall be numbered toward the north.

To further distinguish among the locations, each potential sampling location has been identified with one of the following abbreviations based on the sampling location type:

- discharge locations leaving Caltrans right-of-way: DL
- discharge locations from areas with known non-visible pollutants: NVP
- discharge locations upgradient of areas with known non-visible pollutants: UNVP
- discharge locations to an MS4: MS
- run-on locations: RO
- discharge locations into a receiving water: RW
- downstream of all discharge locations: RWD
- upstream of all discharge locations: RWU
- dewatering discharge locations: DDL
- contained stormwater discharge locations: CSDL
- discharge locations for ATS: ATS

The unique sample location identification code shall follow this format, **SSSTTTTXX** , where:

SSS	=	sampling location identifier number (e.g., 010)
TTTT	=	sampling location type (e.g. DL)
XX	=	identifier number for the type of sampling location

For example, the sampling location identification for the 15th sampling location based on starting from the south end of the project for a stormwater discharge location that has been identified to be the ninth discharge location would be **015DL09**.

Potential sampling locations shown on the WPCDs shall be identified with unique sampling location identifiers. Each potential sample location must be listed on Stormwater Sample Locations in Attachment EE. The unique identification of each potential sampling location based on its number and abbreviation of type shall be used on all sampling documentation.

The WPC Manager may have to revise and/or add additional sampling locations during the course of construction as conditions dictate.

### 700.2.1.3.3 Identification of Actual Sampling Locations

For each forecasted storm event, actual sampling locations will be determined by the WPC Manager based on the strategy described in each specific SAP.

### 700.2.1.3.4 Sampling Schedule



For the sampling schedule, see the specific SAPs in the CSMP. If a scheduled sampling activity is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document why an exception to performing the sampling was necessary.

### **700.2.1.4 Sample Collection and Handling**

Sample collection procedures shall be used to ensure that representative samples are collected and that the potential for contamination of samples is minimized. Sample handling procedures are followed to ensure that samples are identified accurately and that the required analysis is clearly documented. Chain-of-custody requirements for samples are necessary to trace the possession of the sample from collection through analysis.

#### **700.2.1.4.1 Sample Collection Procedures**

Samples shall be collected, maintained and shipped in accordance with the SWAMP's 2008 QAPrP.

Grab samples shall be collected and preserved in accordance with the methods identified in each specific SAP. Only personnel trained in proper water quality sampling shall collect samples.

Samples from areas of sheet flow can be collected using the collection procedures shown in the video at <http://www.youtube.com/watch?v=AmEJUNp44aU>. For pH and turbidity sampling, sheet flow sampling can be conducted as described below to concentrate the flow in order to collect a sample or follow other procedures approved by the RE.

- Place several rows of sandbags in a half circle directly in the path of the sheet flow to pond water, and wait for enough water to spill over. Then place a cleaned or decontaminated flexible hose along the top, and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Do not reuse the same sandbags during future sampling events as they may cross-contaminate future samples.
- Place a cleaned or decontaminated dustpan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.

For receiving water sampling, upstream samples shall be collected to represent the water body upgradient of the construction site. Downstream samples shall be collected to represent the water body mixed with direct discharge from the construction site. Samples shall not be collected directly from ponded, sluggish, or stagnant water.

Receiving water upstream and downstream samples shall be collected using one of the following methods:

- placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel and allowing the sample bottle to fill completely;
- OR
- placing a decontaminated or sterile bailer or other sterile collection device in or near the main current to collect the sample and then transferring the collected water to appropriate sample bottles allowing the sample bottle to fill completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel shall follow the procedures listed below.

- Wear a clean pair of surgical gloves donned prior to the collection and handling of each sample at each location.

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- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water. Dispose of decontamination water/soaps appropriately (i.e., do not discharge to the storm drain system or receiving water).
- Do not allow the inside of the sample bottle to come into contact with any material other than the run-off sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Do not leave the cooler lid open for an extended period of time once samples are placed inside.
- Do not sample near a running vehicle where exhaust fumes may impact the sample.
- Do not touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles.
- Do not eat, smoke, or drink during sample collection/field measurement.
- Do not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.

### 700.2.1.4.2 Sample Handling Procedures

Immediately following collection, sample bottles to be forwarded for laboratory analytical testing shall be capped, labeled, documented on the Chain-of-Custody Record, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at  $0 \pm 4$  degrees Celsius, and delivered within 24 hours to the laboratory shown in sub-section 700.2.1.2.4.

Immediately following collection, samples used for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the CEM-2052 Stormwater Sample Field Test Report form.

### 700.2.1.4.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, the Chain-of-Custody, and the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

The following form, used for sample documentation, is provided in the SWPPP appendices:

- CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, in Appendix M

Duplicate samples shall be identified in a manner consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples can be identified in the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form.

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle, which shall include, at a minimum, the following information:

- project name
- contract number and/or project identifier number

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- unique sample identification code, which shall follow this format, **SSSSYYMMDDHHmmTT** , where

SSSSS	=	sampling location identifier number (e.g., 01MS1)
YY	=	last two digits of the year (e.g. 11)
MM	=	month (01-12)
DD	=	day (01-31)
HH	=	hour sample collected (00-23)
mm	=	minute sample collected (00-59)
TT	=	Type or QA/QC Identifier (if applicable)
G	=	grab
FS	=	field duplicate

For example, the sample number for a grab sample collected at Station 01MS1, collected at 4:15PM on December 8, 2011 would be **01MS11112081615G**.

- constituent to be analyzed
- initials of person who collected the sample

Stormwater Sampling and Testing Activity Log: A log of sampling events and test results shall include:

- sampling date
- separate times for collected samples and QA/QC samples, recorded to the nearest minute
- unique sample identification number and location
- constituent analyzed
- names of sampling personnel
- weather conditions (including precipitation amount)
- test results
- other pertinent data

Sample Information, Identification and Chain-of-Custody Record Forms: All samples to be analyzed by a laboratory will be accompanied by a Chain-of-Custody. The samplers will sign the Chain-of-Custody when samples are turned over to the testing laboratory. Chain-of-custody procedures will be strictly adhered to for QA/QC purposes.

### **700.2.1.5 Sample Analysis**

For the analytical methods to be used to determine the presence of pollutant(s), see the specific SAPs in this CSMP.

### **700.2.1.6 Quality Assurance/Quality Control**

For verification of laboratory or field analysis, duplicate samples shall be collected at a rate of 10 percent or 1 minimum duplicate per sampling event. The duplicate sample shall be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample shall be collected immediately after the primary sample has been collected. Duplicate samples shall not influence any evaluations or conclusions; however, they shall be used as a check on laboratory or field analysis quality assurance.

### **700.2.1.7 Data Management and Reporting**

All test results shall be documented on either the CEM-2052 Stormwater Sample Field Test Report form and/or may be entered on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

For field tests, the submitted information shall include a signed copy of the Chain-of-Custody and CEM-2052 Stormwater Sample Field Test Report form. Appendix N contains the CEM-2052 Stormwater Sample Field Test Report form, which must accompany the Chain-of-Custody Record. The test results can be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form, in Appendix M.

For laboratory testing, all laboratory analysis results shall be reviewed for consistency among laboratory methods, sample identifications, dates, and times for both primary samples and QA/QC samples. The test results may be recorded on the CEM-2051 Stormwater Sampling and Testing Activity Log - Optional Form.

All sampling and testing documentation, including the Chain-of-Custody, CEM-2051 Stormwater Sampling and Testing Activity Logs - Optional Form, CEM-2052 Stormwater Sample Field Test Reports, and Laboratory Test Reports shall be kept in the appropriate SWPPP file category. Sampling and testing documentation shall be filed in the appropriate following SWPPP file category based on the specific SAP that required the sampling and analysis:

- non-visible pollutant sampling and testing – SWPPP File Category 20.51;
- non-stormwater discharge sampling and testing – SWPPP File Category 20.50
- turbidity, pH, and SSC sampling and testing – SWPPP File Category 20.52
- required RWQCB sampling and testing – SWPPP File Category 20.53
- ATS sampling and testing – SWPPP File Category 20.54

If corrective actions are taken as a result of the data evaluation, a copy of the completed CEM-2035 Stormwater Corrective Actions Summary shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of completed sampling records and reports and an updated CEM-2051 Stormwater Sampling and Testing Log - Optional shall be submitted to the RE. All water quality analytical results, including QA/QC data, shall be submitted to the RE within 48 hours of sampling for field analyzed samples, and within 30 days for laboratory analyses.

In addition to a paper copy of the water quality test results, the test results shall be submitted electronically in Microsoft Excel (.xls) format, and shall include, at a minimum, the following information from the lab: Sample ID Number, Contract Number, Constituent, Reported Value, Laboratory Name, Method Reference, Method Number, Method Detection Limit, and Reported Detection Limit. Electronic copies of stormwater data shall be forwarded by email to at for inclusion into a statewide database.

### **700.2.1.8 Data Evaluation**

For data evaluation of stormwater sample test results, see specific SAPs.

### **700.2.1.9 Change of Conditions**

Whenever stormwater visual monitoring site inspections indicate a change in site conditions that might affect the appropriateness of sampling locations, sampling and testing protocols shall be revised accordingly. All such revisions shall be implemented as soon as feasible, and the SWPPP updated or amended.

## **700.2.2 Sampling and Analysis Plan for Non-Visible Pollutants**

This SAP has been prepared for monitoring non-visible pollutants in stormwater and non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring non-visible pollutants includes all of the components listed in Section 700.2.1.

### **700.2.2.1 Scope of Monitoring Activities**

The scope of monitoring for discharges of non-visible pollutants from the construction site is based on the construction materials and construction activities to be performed on the project site, potential for the presence of non-visible pollutants, based on the historical use of the site, and potential non-visible pollutants in run-off from areas where soil amendments have been used on the project site.

The construction materials, wastes or activities listed below, and identified in Section 500.1.1, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the WPCDs in Attachment BB.

- 

The existing site features listed below, and identified in Section 500.1.2, are potential sources of non-visible pollutants to stormwater discharges from the project.

- 

The soil amendments listed below have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site.

- 

### **700.2.2.2 Monitoring Preparation**

Refer to the general requirements in General SAP Section 700.2.1.2 for monitoring preparation.

#### **700.2.2.2.1 Qualified Sampling Personnel**

Refer to the general requirements in General SAP Section 700.2.1.2.1 for Qualified Sampling Personnel.

#### **700.2.2.2.2 Monitoring Supplies**

Refer to the general information in General SAP Section 700.2.1.2.2 regarding monitoring supplies.

#### **700.2.2.2.3 Field Instruments**

Refer to the general information in General SAP Section 700.2.1.2.3 regarding field instruments.

#### **700.2.2.2.4 Testing Laboratory**

Refer to the contact information found in General SAP Section 700.2.1.2.4 for the Testing Laboratory.

### **700.2.2.3 Monitoring Strategy**

The monitoring strategy for non-visible pollutants in stormwater discharges is to identify all potential non-visible pollutants that may be on the project site, non-visible pollutant sources, and water quality indicators that will indicate the presence of the non-visible pollutant in stormwater discharges. Locations will be identified where sources of non-visible pollutants will be used, stored or exist because of historical use of the project site so that these areas are monitored prior to and during forecasted storm events.

Non-visible pollutant monitoring is only required where a discharge can cause or contribute to an exceedance of a water quality standard based on one of the following triggers:

- construction materials and waste are exposed
- the site contains historical non-visible pollutants
- construction activity has occurred or material has been placed within the past 24 hours that may cause an exceedance of a water quality standard
- there is run-on to the site that may contain non-visible pollutants
- there is a breach, malfunction, leak or spill from a BMP

When one of the triggers that indicates a non-visible pollutant source may have come in contact with stormwater is discovered during a site inspection conducted prior to, during or after a forecasted storm event, the WPC Manager will require that sampling and analysis of the stormwater discharge be conducted for the applicable non-visible pollutant water quality indicator(s).

For the forecasted storm event in which a trigger for a non-visible pollutant sampling and analysis has occurred, the WPC Manager will also require the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. The WPC Manager will perform an evaluation of the analysis results from the non-visible pollutant stormwater discharge sampling location and the analysis results from the uncontaminated run-off sampling location to determine if there is an increased level of the tested non-visible pollutant analyte in the stormwater discharge.

#### **700.2.2.3.1 Analytical Constituents**

**Identification of Potential Non-Visible Pollutants**

The following table lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

**700.2.2.3.2 Potential Sampling Locations**

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring non-visible pollutants were identified. Sampling locations are based on: proximity to planned non-visible pollutant storage; occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the Caltrans Construction Site Monitoring Program Guidance Manual, latest edition. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE:

2 sampling location(s) on the project site and the contractor’s support facilities have been identified as potential locations for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned. Potential non-visible pollutant sampling locations are listed in the Table 700.2.2.3.2.1: Potential Non-Visible Pollutant Sampling Locations.

<b>TABLE 700.2.2.3.2.1 POTENTIAL NON-VISIBLE POLLUTANT SAMPLING LOCATIONS</b>	
<b>Sampling Location Identifier</b>	<b>Location Description</b>
SAM-NV-01	See Attachment BB.
SAM-NV-02	See Attachment BB.

Potential non-visible pollutant sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE:

2 sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location(s) was selected such that the sample will not have come in contact with (1) operational or storage areas associated with the materials, wastes, and activities identified in Section 500.1.1; (2) potential non-visible pollutants due to historical use of the site, as identified in Section 500.1.2; (3) areas in which soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied; or (4) disturbed soils areas. Potential non-visible pollutant uncontaminated sampling locations are listed in Table 700.2.2.3.2.2: Potential Uncontaminated Non-visible Pollutant Sampling Locations.

<b>TABLE 700.2.2.3.2.2 POTENTIAL UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATIONS</b>	
<b>Sampling Location Identifier</b>	<b>Location Description</b>
SAM-NV-01	See Attachment BB.
SAM-NV-02	See Attachment BB.

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Potential non-visible pollutant uncontaminated sampling locations shall be shown on the WPCDs from Attachment BB and listed on Stormwater Sampling Locations in Attachment EE.

**700.2.2.3.3 Actual Sampling Locations**

Sampling for non-visible pollutants at any potential non-visible pollutant sampling location will be based on any of the conditions listed below having been identified during the visual monitoring site inspections.

- Locations where materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.
- Locations where materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the forecasted storm event, and (3) the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where a construction activity ( including but not limited to those identified in Section 500.1.1) with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the forecasted storm event, (2) involved the use of applicable BMPs that were observed to be breached, malfunctioning, or improperly implemented, and (3) resulted in the potential for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.
- Locations where stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and the potential exists for discharge of non-visible pollutants to surface waters or a storm drain system.

If the presence of a material storage, waste storage, or operations area where spills have been observed or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system was noted during a site inspection conducted prior to or during a forecasted storm event and such an area has not been identified on the list of potential non-visible pollutant sampling locations, the WPC Manager must identify the corresponding discharge location and the corresponding upgradient sampling location as actual non-visible sampling locations. The additional sampling location for non-visible pollutant monitoring shall be shown on the WPCDs from Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

For forecasted storm events, the selection of the actual sampling locations for non-visible pollutants by the WPC Manager will be documented on the CEM-2048 Storm Event Sampling and Analysis Plan form, in Appendix N. The completed SAP for each storm event will be filed in File Category 20.46: Storm/Rain Event Action, Sampling and Analysis Plans. Within 24 hours prior to a storm event, a copy of the storm event SAP shall be submitted to the RE.

For qualifying rain events, the selection of the actual sampling locations for non-visible pollutants by the WPC Manager will be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan. The completed SAP for each qualifying rain event will be filed in File Category 20.46: Storm/Rain Event Sampling and Analysis Plans. Within 24 hours prior to a storm event, a copy of the SAP shall be attached to the REAP and submitted to the RE.

**700.2.2.3.4 Sampling Schedule**



In addition to the general scheduling requirements in General SAP Section 700.2.1.3.4, samples for non-visible pollutant monitoring, including both the non-visible pollutants samples and uncontaminated background samples, shall be collected during the first two hours of discharge from storm events that result in a sufficient discharge for sample collection. Samples shall be collected during daylight hours, 7 days a week.

#### **700.2.2.4 Sample Collection and Handling**

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

##### **700.2.2.4.1 Sample Collection Procedures**

Refer to the general procedures for sample collection in General SAP Section 700.2.1.4.1.

##### **700.2.2.4.2 Sample Handling Procedures**

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

##### **700.2.2.4.3 Sample Documentation Procedures**

In addition to the general sample documentation procedures provided in General SAP Section 700.2.1.4.3, when applicable, the contractor's stormwater inspector will document in the CEM-2030 Stormwater Site Inspection Report, that samples for non-visible pollutants were taken during a storm event, based on the criteria for non-visible pollutant sampling described in Section 700.2.2.3.3.

#### **700.2.2.5 Sample Analysis**

Samples collected for monitoring of non-visible pollutants will be analyzed by the laboratory identified in Section 700.2.1.2.4. Samples shall be analyzed for the constituents identified in Table 700.2.2.3.1, using the analytical methods identified in the following table, entitled "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants."

#### **700.2.2.6 Quality Assurance/Quality Control**

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 700.2.1.6.

#### **700.2.2.7 Data Management and Reporting**

Refer to general requirements for data management and reporting in Section General SAP 700.2.1.7.

### **700.2.2.8 Data Evaluation**

Water quality sample analytical results for non-visible pollutants shall be compared to the uncontaminated background sample results. Should the discharge (downgradient) sample show an increased level of the tested non-visible pollutant analyte relative to the background sample, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visual pollutant concentrations. Once deemed necessary, corrective actions shall be implemented, as required by Standard Specification 13-1.03A, within 24 hours of identification unless a longer period is authorized (but cannot be authorized longer than required by the CGP: implemented within 72 hours of identification and completed as soon as possible thereafter), and documented on the CEM-2035 Stormwater Corrective Actions Summary. Revisions/design changes to BMPs required as a result of data evaluation and site assessment shall be implemented based on an amendment to the SWPPP.

### **700.2.2.9 Change of Conditions**

Refer to the general requirements for change of conditions in General SAP Section 700.2.1.9.

## **700.2.3 Sampling and Analysis Plan for Non-Stormwater Discharges**

This SAP has been prepared for monitoring non-stormwater discharges from the project site and off-site activities directly related to the project, in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring non-stormwater discharges includes all of the components listed in Section 700.2.1.

### **700.2.3.1 Scope of Monitoring Activities**

Non-stormwater discharges can be authorized by a separate NPDES permit or conditional exemption. For non-stormwater discharges that are unauthorized where runoff is discharged off site, sampling and testing of the discharge must be conducted in compliance with the CGP.

Examples of unauthorized non-stormwater discharges common to construction activities include:

- vehicle and equipment wash water, including concrete washout water
- slurries from concrete cutting and coring operations, or grinding operations
- slurries from concrete or mortar mixing operations
- residue from high-pressure washing of structures or surfaces
- wash water from cleaning painting equipment

- runoff from dust control applications of water or dust palliatives
- sanitary and septic wastes
- chemical leaks and/or spills of any kind, including but not limited to, petroleum, paints, cure compounds, etc

When an unauthorized non-stormwater discharge is discovered, the WPC Manager will require sampling and analysis of the effluent to detect whether non-visible pollutants are present in the discharge. Sampling and analysis of non-stormwater discharges shall be performed in accordance with Section 700.2.2, the SAP for non-visible pollutants.

Sampling and analysis for pH and turbidity of stored or impounded stormwater discharges subsequent to a qualifying rain event (a rain event that has produced ½ inch or more of precipitation at the time of discharge) shall be performed in accordance with Section 700.2.4, the SAP for stormwater pH and turbidity.

### **700.2.3.2 Monitoring Preparation**

Refer to the general requirements for monitoring preparation in General SAP Section 700.2.1.2.

#### **700.2.3.2.1 Qualified Sampling Personnel**

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 700.2.1.2.1.

#### **700.2.3.2.2 Monitoring Supplies**

Refer to the general information regarding monitoring supplies in General SAP Section 700.2.1.2.2.

#### **700.2.3.2.3 Field Instruments**

Refer to the general information regarding field instruments in General SAP Section 700.2.1.2.3.

#### **700.2.3.2.4 Testing Laboratory**

Refer to the contact information for the testing laboratory found in General SAP Section 700.2.1.2.4.

### **700.2.3.3 Monitoring Strategy**

Non-stormwater discharges from the construction site will be monitored for exceedances of water quality standards.

#### **700.2.3.3.1 Analytical Constituents**

For non-stormwater dewatering discharges and discharges of stored stormwater, samples shall be analyzed for the following constituents:

- turbidity
- pH
- 

**700.2.3.3.2 Potential Sampling Locations**

Using the criteria in Section 700.2.1.3.2, potential sampling locations on the project site for monitoring dewatering discharges, discharges of impounded stormwater, and other non-stormwater discharges were identified. Sampling locations were based on: proximity to planned non-stormwater dewatering; non-stormwater occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the *Caltrans Construction Site Monitoring Program Guidance Manual*, August 2013. Sampling locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sampling Locations in Attachment EE.

sampling location(s) on the project site have been identified as potential locations for the collection of non-stormwater dewatering samples and the sampling location(s) are listed in Table 700.2.3.3.2.1: Potential Non-stormwater Dewatering Sampling Locations.

<b>TABLE 700.2.3.3.2.1 POTENTIAL NON-STORMWATER DEWATERING SAMPLING LOCATIONS</b>	
<b>Sampling Location Identifier</b>	<b>Location Description</b>

sampling location(s) on the project site been identified as potential locations for the collection of discharge samples of impounded stormwater and the sampling location(s) are listed in Table 700.2.3.3.2.2: Potential Impounded Stormwater Discharge Sampling Locations.

<b>TABLE 700.2.3.3.2.2 POTENTIAL IMPOUNDED STORMWATER DISCHARGE SAMPLING LOCATIONS</b>	
<b>Sampling Location Identifier</b>	<b>Location Description</b>

**700.2.3.3.3 Actual Sampling Locations**

Actual sampling locations will be determined by the WPC Manager prior to dewatering activities based on the potential dewatering discharge sample locations initially selected.

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When stormwater is impounded in excavations on the project site and the impounded stormwater has the potential to create runoff from the project site, the WPC Manager will determine the actual sampling location for collecting impounded stormwater discharge samples.

If new locations for dewatering discharges or impounded stormwater discharges that have not been identified on the list of potential stormwater and non-stormwater sampling locations are identified during the course of construction, the WPC Manager must create sampling location identifiers for the dewatering discharge sampling location. The additional sampling location for dewatering discharge monitoring shall be shown on the WPCDs in Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

### 700.2.3.3.4 Sampling Schedule

Whenever there are dewatering discharges or impounded stormwater discharges, sampling will be performed daily during discharging. Sampling will be performed upon commencement of the dewatering discharge or impounded stormwater discharge, and then at least a minimum of three (3) samples per day will be collected for analysis, depending on visual monitoring.

### 700.2.3.4 Sample Collection and Handling

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

#### 700.2.3.4.1 Sample Collection Procedures

Refer to the general procedures for sample collection in General SAP Section 700.2.1.4.1.

#### 700.2.3.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

#### 700.2.3.4.3 Sample Documentation Procedures

In addition to the general procedures for sample documentation in General SAP Section 700.2.1.4.3, when applicable, the contractor's stormwater inspector will document on the CEM-2030 Stormwater Site Inspection Report that samples for non-stormwater discharge pollutants were taken based on a visual monitoring site inspection.

### 700.2.3.5 Sample Analysis

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Samples from non-stormwater discharges shall be analyzed for pH and turbidity at a minimum. (If other constituents are warranted.)

The WPC Manager may determine that samples of non-stormwater discharges, need to be analyzed for non-visible pollutants. If the WPC Manager determines that non-visible pollutants may have contaminated the discharge, the samples shall be analyzed for the suspected pollutants. Sampling and analysis for non-visible pollutants in non-stormwater discharges shall be performed following the guidance in Section 700.2.2, the SAP for non-visible pollutants.

Samples shall be analyzed for the constituents indicated in the following table, titled “Sample Collection, Preservation and Analysis for Monitoring Water Extracted by Dewatering or Impounded Stormwater Discharges.”

<b>TABLE 700.2.3.5 SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING WATER EXTRACTED BY DEWATERING OR IMPOUNDED STORMWATER DISCHARGES</b>						
<b>Parameter</b>	<b>Test Method</b>	<b>Sample Preservation</b>	<b>Minimum Sample Volume<sup>(1)</sup></b>	<b>Sample Bottle</b>	<b>Maximum Holding Time</b>	<b>Detection Limit (min)</b>
Turbidity	Field test with calibrated portable instrument	Store at 4° C (39.2° F)	100 mL	Polypropylene or Glass	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Store at 4° C (39.2° F)	100 mL	Polypropylene	15 Minutes	0.2

Notes: 1. Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

- °C - degrees Celsius
- °F - degrees Fahrenheit
- L - liter
- ml - milliliters
- NTU - Nephelometric Turbidity Unit

**700.2.3.6 Quality Assurance/Quality Control**

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in Section General SAP 700.2.1.6. For samples analyzed for turbidity and pH the following replaces the requirements for QA/QC in Section 700.2.1.6:

The contractor shall coordinate with the Caltrans RE on sampling locations and timing for quality assurance verification of field sampling and analysis. The contractor shall notify the RE at least 24 hours prior to dewatering discharge or impounded stormwater discharge sampling events.

**700.2.3.7 Data Management and Reporting**

Refer to the general requirements for data management and reporting in General SAP Section 700.2.1.7.

**700.2.3.8 Data Evaluation**

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE for every day that the water from dewatering is discharged. Should the dewatering discharge concentrations exceed applicable water quality standards, discharging will be stopped immediately and the WPC Manager or other personnel shall evaluate the dewatering BMPs to determine the probable cause for the exceedance. For dewatering discharges, Caltrans requires that the turbidity of any sample must not exceed 200 NTU. The pH value of any sample must be within the range of 6.7 to 8.3 pH units.

Samples of non-stormwater collected during discharge shall be evaluated by determining if suspected contaminants are present. Unauthorized discharges will be stopped as soon as possible and the RE will be notified immediately and a written report of discharge shall be completed and submitted to the RE. Authorized discharges shall be sampled for pH and turbidity and all suspected pollutants. For pH and turbidity, sample results shall be compared to the NAL.

As determined by the data evaluation and project site assessment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documents on the CEM-2035 Stormwater Corrective Actions Summary. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP.

### **700.2.3.9 Changes of Conditions**

Refer to the general requirements for changes of conditions in General SAP Section 700.2.1.9.

## **700.2.4 Sampling and Analysis Plan for Stormwater pH and Turbidity**

This SAP has been prepared for monitoring pH and turbidity in stormwater discharges from the project site and off-site activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. This SAP for monitoring pH and turbidity includes all of the components listed in Section 700.2.1.

### **700.2.4.1 Scope of Monitoring Activities**

The scope of monitoring for this SAP includes monitoring for pH and turbidity in stormwater discharges from the project site and, run-on to the project site.

This project discharges into , a water body that is sediment-sensitive. Monitoring of the receiving water will be required when direct discharges to the receiving water.

### **700.2.4.2 Monitoring Preparation**

Refer to the general requirements for monitoring preparation in General SAP Section 700.2.1.2.

#### **700.2.4.2.1 Qualified Sampling Personnel**

Refer to the general requirements for Qualified Sampling Personnel in General SAP Section 700.2.1.2.1.

#### **700.2.4.2.2 Monitoring Supplies**

Refer to the general information regarding monitoring supplies in General SAP Section 700.2.1.2.2.

### **700.2.4.2.3 Field Instruments**

Refer to the general information regarding field instruments in General SAP Section 700.2.1.2.3.

### **700.2.4.2.4 Testing Laboratory**

Refer to the contact information for the testing laboratory found in General SAP Section 700.2.1.2.4.

## **700.2.4.3 Monitoring Strategy**

Monitor representative stormwater discharges from the project site for pH and turbidity during qualifying rain events (a rain event that has produced precipitation in the form of rain and produced run-off at the time of discharge).

### **700.2.4.3.1 Analytical Constituents**

Stormwater discharge samples are to be analyzed for pH and turbidity.

### **700.2.4.3.2 Potential Sampling Locations**

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring pH and turbidity were identified. Potential sampling locations for monitoring stormwater discharges for pH and turbidity are based on drainage areas; run-on and runoff locations; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the Caltrans Construction Site Monitoring Program Guidance Manual, August 2013. Stormwater discharge locations shall be shown on the WPCDs in Attachment BB and listed on Stormwater Sample Locations in Attachment EE:

The stormwater discharge locations on the project site are listed in Table 700.2.4.3.2.1 “Stormwater Discharge Locations.”

<b>TABLE 700.2.4.3.2.1 STORMWATER DISCHARGE LOCATIONS</b>	
<b>Sampling Location Identifier</b>	<b>Location</b>

The project does not receive run-on with the potential to combine with stormwater discharges.

### **700.2.4.3.3 Actual Sampling Locations**

The WPC Manager shall select sampling locations from the list of potential sampling locations for stormwater discharge sampling shown on the WPCDs from Attachment BB and listed on Stormwater Sampling Locations in Attachment EE. If the construction activity has not started within the drainage area at a sampling location, and there is no disturbed soil within a drainage area, sampling from the stormwater discharge location from that drainage area is not required.



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Within 72 to 48 hours prior to each qualifying rain event, the WPC Manager must identify the drainage areas that must be sampled. To identify these drainage areas, the WPC Manager must refer to the WPCDs and consider the conditions described below and activities within each drainage area that could have an effect on the stormwater discharge pH or turbidity.

1. Turbidity: The area of the disturbed soil at the time of precipitation could have an impact on the stormwater run-off turbidity. The area of the disturbed soil at the time of predicted precipitation must be expressed as a percentage of the total drainage area. It is reasonable to assume that a larger percentage of disturbed soil area could result in a more turbid run-off.
2. pH: The type of construction activities that could have an impact on stormwater run-off pH (for example, concrete work and saw cutting, lime stabilization work, use of crushed concrete, etc).

For representative sampling of construction site discharges, 20 percent of the drainage areas with disturbed soil areas and 20 percent of the drainage areas where activities that could potentially have an impact on the discharge pH must be sampled. At least five (5) drainage area discharge locations for each qualifying rain event must be sampled. If there are five (5) or fewer drainage area sampling locations in a project, then all drainage area sampling locations must be sampled. The drainage areas with the largest percentage of disturbed soil area must be included in the selected drainage areas to be sampled. The drainage areas where the most extensive activities (activities that potentially can alter discharge pH) are in progress must be included in the selected drainage areas to be sampled.

This representative monitoring strategy for stormwater discharges requires collection of additional samples based upon the preceding sampling event stormwater discharge pH or turbidity analysis results when the:

- turbidity analysis results – even in one sampling location – in the previous sampling event have exceeded 200 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 50 percent.
- turbidity analysis results – even in one sampling location – in the previous sampling event have exceeded 250 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 100 percent.
- pH analysis results – even in one sampling location – in the previous sampling event have not fallen within 6.5 to 8.5 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 50 percent.
- pH analysis results – even in one sampling location – in the previous sampling event have not fallen within 6.0 to 9.0 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 100 percent.

The selection of additional sampling locations, based on turbidity results, will involve drainage areas with the highest percentage of disturbed soil area. The selection of additional sampling locations, based on pH results, will be involve drainage areas with construction activities that are most likely to affect stormwater discharge pH.

### 700.2.4.3.4 Sampling Schedule

Discharge samples shall be collected for turbidity and pH for qualifying rain events that result in a discharge from the project site. When applicable, upstream, downstream, and run-on samples shall be collected for analysis of turbidity and pH. Sampling and testing for turbidity and pH will be performed daily during all qualifying rain events. Samples shall be collected during working hours.

*Stormwater Pollution Prevention Plan (SWPPP)*

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At least 48 hours prior to each qualifying rain event, the WPC Manager must prepare a list of sampling locations that must be sampled for the qualifying rain event.

The locations shall include all of the following sampling location types:

- discharge locations from the drainage areas with the largest percentage of disturbed soil areas,
- discharge locations from the drainage areas where construction activities that could have an impact on stormwater run-off pH are in progress, and
- if applicable, at least one sampling location from drainage areas where the disturbed soil areas have been stabilized.

The sampling locations must be sampled in the following order: starting with the sampling location on the northwest corner of the WPCDs as the first entry and move clockwise on the WPCDs.

The Caltrans stormwater site inspector and contractor inspector must coordinate and select the sampling locations and the time to meet and collect simultaneous samples for the purposes of QA/QC.

Every reasonable attempt has to be made to collect at least three grab samples per day from each sampling location during the qualifying rain event.

Sampling must start immediately after the flow begins or as soon as possible thereafter. The individual responsible for collecting samples must begin sampling with the first sampling location identified and move on to the next sampling location until all locations are sampled. It is preferable that the three rounds of sampling are performed over the first three hours of the flow; however, depending on the time of the day or other dictating conditions in the field, the three rounds of sampling could be performed over a shorter period of time to ensure that three samples per location are collected.

If stormwater sampling is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document the conditions resulting in the sampling not being performed as planned.

### **700.2.4.4 Sample Collection and Handling**

Refer to the general requirements for sample collection and handling in General SAP Section 700.2.1.4.

#### **700.2.4.4.1 Sample Collection Procedures**

In addition to the general procedures for sample collection in General SAP Section 700.2.1.4.1, the procedures described below apply to sample collection for monitoring of pH and turbidity.

- Grab samples shall be collected and preserved in accordance with the methods identified in Table 700.2.4.5.1: Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH, provided in Section 700.2.4.5.
- Only personnel trained in proper water quality sampling shall collect samples.

#### **700.2.4.4.2 Sample Handling Procedures**

Refer to the general procedures for sample handling in General SAP Section 700.2.1.4.2.

### 700.2.4.4.3 Sample Documentation Procedures

Refer to the general procedures for sample documentation in General SAP Section 700.2.1.4.3.

### 700.2.4.5 Sample Analysis

Samples shall be analyzed for the constituents indicated in Table 700.2.4.5.1: “Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH.”

<b>TABLE 700.2.4.5.1 SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING TURBIDITY AND PH</b>						
<b>Parameter</b>	<b>Test Method</b>	<b>Sample Bottle</b>	<b>Minimum Sample Volume<sup>(1)</sup></b>	<b>Sample Preservation</b>	<b>Maximum Holding Time</b>	<b>Detection Limit (min)</b>
Turbidity	Field test with calibrated portable instrument	Polypropylene or Glass	100 mL	Store at 4° C (39.2° F)	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Polypropylene	100 mL	Store at 4° C (39.2° F)	15 minutes	0.2

**Acronyms/Notes:**

- C = Celsius
- F = Fahrenheit
- Min = minimum
- mL = milliliter
- NTU = Nephelometric Turbidity Units

(1) Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

### 700.2.4.6 Quality Assurance/Quality Control

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) in General SAP Section 700.2.1.6. The following replaces the requirements for QA/QC in Section 700.2.1.6 for turbidity and pH quality assurance testing. However, Section 700.2.1.6 requirements apply for SSC quality assurance testing: The contractor shall coordinate with Caltrans RE on sampling locations and timing for quality assurance verification of field sampling and analysis activities. The contractor shall notify the RE at least 24 hours prior to sampling events.

### 700.2.4.7 Data Management and Reporting

Refer to general requirements for data management and reporting in General SAP Section 700.2.1.7.

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In addition to the general requirements for data management and reporting in Section 700.2.1.7, the additional reporting described below is required.

**Numeric Action Limit Exceedance Reporting** - This project is subject to NALs for pH and turbidity as shown in Table 700.2.4.7.1 “NALs for Monitoring pH and Turbidity.”

TABLE 700.2.4.7.1 NALs FOR MONITORING pH AND TURBIDITY				
Parameter	Test Method	Detection Limit (min)	Unit	Numeric Action Level
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU	250 NTU

**Acronyms:**

Min = Minimum

NAL = numeric action level

NTU = Nephelometric Turbidity Units

If the NAL for pH or turbidity or both are exceeded, then form CEM-2062 NAL Exceedance Report will be completed and submitted to the RE within 48 hours after the sampling and analysis event. The NAL Exceedance Report will

- test results, analytical methods, reporting units, and detection limits
- date, sampling location, time of sampling, and visual observations
- predicted quantity of precipitation of the forecasted storm event, and estimated quantity of precipitation at the time of sampling
- description of BMPs
- corrective actions taken to manage the NAL exceedance

Once deemed necessary, corrective actions shall be immediately implemented and documented. Appendix I contains the CEM-2035 Stormwater Corrective Actions Summary form and Appendix O contains the CEM-2062 NAL Exceedance Report form. NAL exceedance reports will be filed in SWPPP File Category 20.62: Numeric Action Level Exceedance Reports.

### 700.2.4.8 Data Evaluation

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the RE for every day of stormwater sampling. If the stormwater discharge concentrations exceed applicable water quality standards, the WPC Manager or other personnel shall evaluate the project site BMPs to determine the probable cause for the exceedance.

As determined by the data evaluation and project site assessment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documented on the CEM-2035 Stormwater Corrective Actions Summary. Any revisions/design changes to BMPs shall be implemented based on an amendment to the SWPPP.

#### **700.2.4.9 Change of Condition**

Refer to the general requirements for changes of conditions in General SAP Section 700.2.1.9.

#### **700.2.5 *Sampling and Analysis Plan for Monitoring Required by Regional Board***

This project does not require a Sampling and Analysis Plan for Monitoring required by a RWQCB.

#### **700.2.6 *Sampling and Analysis Plan for Monitoring of Active Treatment System***

This project does not require a SAP for an ATS because deployment of such a system is not planned.

# SECTION 800

## POST-CONSTRUCTION CONTROL PRACTICES

### ***800.1 Post-Construction Control Practices***

The following are the post-construction BMPs for the project site

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### ***800.2 Post-Construction Operation/Maintenance***

The post-construction BMPs that are listed above will be funded and maintained in the following manner.

short-term funding: County of Imperial

long-term funding: County of Imperial

The responsible party for the long-term maintenance of post-construction BMPs is Niland County Sanitation District, County of Imperial

# **SECTION 900**

## **SWPPP REPORTING REQUIREMENTS**

### **900.1 Recordkeeping**

To manage the various documents required by the SWPPP and to provide easy access to the documents, the following SWPPP file categories will be used to file SWPPP compliance documents:

File Category 20.01	Stormwater Pollution Prevention Plan (SWPPP)
File Category 20.02	Stormwater Pollution Prevention Plan Amendments
File Category 20.03	Water Pollution Control Schedule Updates
File Category 20.05	Notice of Intent
File Category 20.06	Legally Responsible Person Authorization of Approved Signatory
File Category 20.10	Correspondence
File Category 20.21	Subcontractor Contact Information and Notification Letters
File Category 20.22	Material Suppliers Contact Information and Notification Letters
File Category 20.23	Contractor Personnel Training Documentation
File Category 20.31	Contractor Stormwater Site Inspection Reports
File Category 20.32	Caltrans Stormwater Site Inspection Reports
File Category 20.33	Site Visual Monitoring Inspection Reports
File Category 20.34	Best Management Practices Weekly Status Reports
File Category 20.35	Corrective Actions Summary
File Category 20.40	Weather Monitoring Logs
File Category 20.45	Rain Event Action Plans
File Category 20.46	Storm/Rain Event Sampling and Analysis Plan
File Category 20.50	Non-Stormwater Discharge Sampling and Test Results
File Category 20.51	Non-Visible Pollutant Sampling and Test Results
File Category 20.52	Turbidity, pH and SSC Sampling and Test Results
File Category 20.53	Required Regional Water Board Monitoring Sampling and Test Results
File Category 20.54	ATS Monitoring Sampling and Test Results
File Category 20.55	Field Testing Equipment Maintenance and Calibration Records
File Category 20.61	Notice of Discharge Reports
File Category 20.62	Numeric Action Level Exceedance Reports
File Category 20.63	Numeric Effluent Limitation Violation Reports
File Category 20.70	Annual Certification of Compliance
File Category 20.80	Stormwater Annual Reports

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File Category 20.90 .....Notice of Termination

Records shall be retained for a minimum of three years for the following items:

- approved SWPPP document and amendments
- Stormwater Site Inspection Reports
- Site Inspection Report Corrections Summary
- Rain Event Action Plans (REAPs)
- Notice of Discharge Reports
- Numeric Action Limit (NAL) Exceedance Reports
- Numeric Effluent Limitaion (NEL) Violation Reports
- sampling records and analysis reports
- Annual Compliance Certifications
- copies of all applicable permits

## **900.2 Stormwater Annual Report**

A Stormwater Annual Report will be prepared for this project to document the stormwater monitoring information and training information.

The stormwater monitoring information listed below shall be included in the Stormwater Annual Report.

- A summary and evaluation of all sampling and analysis results, including copies of laboratory reports.
- The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter.
- A summary of all corrective actions taken during the compliance year.
- Identification of any compliance activities or corrective actions that were not implemented.
- •A summary of all violations of the CGP.
- The names of individual(s) who performed site inspections, sampling, site visual monitoring inspections and/or measurements.
- The date, place, and time of site inspections, sampling, site visual monitoring inspections, and/or measurements, including precipitation (rain gauge).
- Any site visual monitoring inspection and sample collection exception records.

The stormwater training information listed below shall be included in the Stormwater Annual Report.

- Documentation of all training for individuals responsible for all activities associated with compliance with the CGP.
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair.
- Documentation of all training for individuals responsible for overseeing, revising and amending the SWPPP.



### **900.3 Discharge Reporting**

If an unauthorized discharge is discovered or evidence of a previously unseen discharge is discovered, the Contractor shall notify the RE within 6 hours of the discovery, and will file a written report with the RE within 24 hours after the discovery. The written report to the RE will contain the following items:

- date, time, location, and type of unauthorized discharge
- nature of operation that caused the discharge
- initial assessment of any impacts caused by the discharge
- BMPs deployed before the discharge event and date(s) of deployment
- BMPs deployed after the discharge event, including re-installation, maintenance or repair of initial BMPs
- steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge form in Appendix M. A log of all reportable discharges shall be documented on CEM-2065 Discharge Reporting Log form in Appendix Z. Completed CEM-2061 Notice of Discharge forms shall be submitted to the RE within 24 hours after the discharge event or discovery of evidence of a prior discharge. Copies of completed forms will be kept in File Category 20.61: Notice of Discharge Reports.

### **900.4 Regulatory Agency Notice or Order Reporting**

If a written notice or order is issued to the project by any regulatory agency, the Contractor will notify the RE within 6 hours of receiving the notice or order and will file a written report to the RE within 48 hours of receiving the notice or order. Corrective measures will be implemented immediately following receipt of the notice or order.

The report to the RE will contain the following items

- the date, time, location, and cause or nature of the notice or order
- the BMPs deployed prior to receiving the notice or order
- the date of deployment and type of BMPs deployed after receiving the notice or order, including additional BMPs installed or planned to reduce or prevent recurrence
- an implementation and maintenance schedule for any affected BMPs

### **900.5 Illegal Connection/Illicit Discharge Reporting**

If the Contractor discovers an illegal connection to a storm drain system or any pipe discharging onto the project site, not shown on the project plans, the Contractor shall notify the RE within 6 hours of the discovery and shall file a written report to the RE within 48 hours of the discovery.

If the Contractor discovers any illicit discharge, including illegal disposing of material on the project site, the Contractor shall immediately notify the RE and shall file a written report to the RE within 3 days of discovery.

The report to the RE will contain the following items:

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- the date, time, and location of the discovery
- the details for the illegal connection or illicit discharge, including any photographs taken
- any actions taken to contain the illicit discharge
- any sampling and testing performed on material that was illegally disposed of or discharged

# ATTACHMENT A

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LEGALLY RESPONSIBLE PERSON AUTHORIZATION OF APPROVED SIGNATORY

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**LEGALLY RESPONSIBLE PERSON**  
**AUTHORIZATION OF APPROVED SIGNATORY**  
 CEM-2006 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road Niland, CA 92257	CONTRACT NUMBER/CO/RTE/PM
LEGALLY RESPONSIBLE PERSON NAME AND TITLE John Gay, Director of Public Works	PROJECT IDENTIFIER NUMBER  LEGALLY RESPONSIBLE PERSON ADDRESS 115 South 11th Street El Centro, CA 92243

The Legally Responsible Person appoints the following person:

Authorized approved signatory name and title

Authorized approved signatory address

I hereby agree and further authorize the above-named designated authorized approved signatory to certify all permit registration documents, Numeric Action Level Exceedance Reports, ATS, Numeric Effluent Limitation Violation Reports, Receiving Water Monitoring Trigger Reports, Annual Reports, and Notices of Termination in accordance with Section IV.I, Section IV.XVI, Attachment D, and Attachment E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2010-0014-DWQ & 2012-0006-DWQ, NPDES No. CAS000002.

I hereby further authorize the above-named designated approved signatory to submit documents electronically to the State Water Resources Control Board SMARTS database.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ at \_\_\_\_\_ California

Legally responsible person signature	Approved signatory signature
Legally responsible person name	Approved signatory name
Phone number	Phone number

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## Instructions

### General Information

- This form is required for compliance with provisions in Section IV.I of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, amended by 2010-0014-DWQ & 2012-0006-DWQ, NPDES No. CAS000002.
- The legally responsible person (LRP) for Caltrans projects is the district director. The LRP may authorize the project resident engineer to be the approved signatory.
- For a local agency, the LRP is either a principal executive officer or ranking elected official. The local agency LRP may authorize the project resident engineer to be the approved signatory.
- For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
  1. For a corporation, a responsible corporate officer.
  2. For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- The private entity LRP may not authorize an approved signatory.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan.

### Form

#### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a project identifier number. For projects without a number, write N/A in the field.

#### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the contract number field.

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# ATTACHMENT B

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NOTICE OF INTENT (NOI)

# ATTACHMENT C

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## RISK LEVEL DETERMINATION

## Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.



*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit and plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

#### References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

## Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk "\*" denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Imperial County, California, Imperial Valley Area														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	
114—Imperial silty clay, wet														
Imperial, wet	85	C	0-12	Silty clay	CH, CL	A-7	0- 0- 0	0- 0- 0	85-100-100	80-100-100	76-98-100	72-95-95	40-50-60	20-25-35
			12-60	Silty clay loam, silty clay, clay	CH, CL	A-7	0- 0- 0	0- 0- 0	85-100-100	80-100-100	72-95-100	60-85-95	40-50-60	15-23-30
115—Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes														
Imperial, wet	41	C	0-12	Silty clay loam	CL	A-6	0- 0- 0	0- 0- 0	85-100-100	80-100-100	76-98-100	68-90-95	35-38-40	15-18-20
			12-60	Silty clay loam, silty clay, clay	CH, CL	A-7	0- 0- 0	0- 0- 0	85-100-100	80-100-100	72-95-100	60-85-95	40-50-60	15-23-30
Glenbar, wet	40	C	0-13	Silty clay loam	CL	A-6	0- 0- 0	0- 0- 0	85-100-100	80-98-100	76-95-100	68-85-95	30-35-40	10-13-15
			13-60	Clay loam, silty clay loam	CL	A-6	0- 0- 0	0- 0- 0	85-100-100	80-98-100	72-95-100	56-80-95	30-35-40	10-13-15

## Data Source Information

Soil Survey Area: Imperial County, California, Imperial Valley Area  
Survey Area Data: Version 14, Sep 1, 2022

## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

## Report—Map Unit Description

### Imperial County, California, Imperial Valley Area

#### 114—Imperial silty clay, wet

##### Map Unit Setting

*National map unit symbol:* h8zn

*Elevation:* -230 to 200 feet

*Mean annual precipitation:* 0 to 3 inches  
*Mean annual air temperature:* 72 to 75 degrees F  
*Frost-free period:* 300 to 350 days  
*Farmland classification:* Farmland of statewide importance

**Map Unit Composition**

*Imperial, wet, and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Imperial, Wet****Setting**

*Landform:* Basin floors  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Clayey alluvium derived from mixed and/or clayey lacustrine deposits derived from mixed

**Typical profile**

*H1 - 0 to 12 inches:* silty clay  
*H2 - 12 to 60 inches:* silty clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 20.0  
*Available water supply, 0 to 60 inches:* Moderate (about 8.3 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C  
*Ecological site:* R040XD007CA - Lacustrine Basin and Large River Floodplain  
*Hydric soil rating:* No

**Minor Components****Meloland**

*Percent of map unit:* 4 percent  
*Hydric soil rating:* No

**Glenbar***Percent of map unit: 4 percent**Hydric soil rating: No***Holtville***Percent of map unit: 4 percent**Hydric soil rating: No***Niland***Percent of map unit: 3 percent**Hydric soil rating: No***115—Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes****Map Unit Setting***National map unit symbol: h8zp**Elevation: -230 to 200 feet**Mean annual precipitation: 0 to 3 inches**Mean annual air temperature: 72 to 75 degrees F**Frost-free period: 300 to 350 days**Farmland classification: Farmland of statewide importance***Map Unit Composition***Imperial, wet, and similar soils: 41 percent**Glenbar, wet, and similar soils: 40 percent**Minor components: 19 percent**Estimates are based on observations, descriptions, and transects of the mapunit.***Description of Imperial, Wet****Setting***Landform: Basin floors**Landform position (three-dimensional): Talf**Down-slope shape: Linear**Across-slope shape: Linear**Parent material: Clayey alluvium derived from mixed and/or clayey lacustrine deposits derived from mixed***Typical profile***H1 - 0 to 12 inches: silty clay loam**H2 - 12 to 60 inches: silty clay loam***Properties and qualities***Slope: 0 to 2 percent**Depth to restrictive feature: More than 80 inches**Drainage class: Moderately well drained**Runoff class: Low**Capacity of the most limiting layer to transmit water**(Ksat): Moderately high (0.20 to 0.57 in/hr)**Depth to water table: More than 80 inches**Frequency of flooding: None*



*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 20.0  
*Available water supply, 0 to 60 inches:* Moderate (about 8.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C  
*Ecological site:* R040XD007CA - Lacustrine Basin and Large River Floodplain  
*Hydric soil rating:* No

**Description of Glenbar, Wet****Setting**

*Landform:* Basin floors  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium derived from mixed

**Typical profile**

*H1 - 0 to 13 inches:* silty clay loam  
*H2 - 13 to 60 inches:* clay loam

**Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 5 percent  
*Maximum salinity:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 15.0  
*Available water supply, 0 to 60 inches:* High (about 10.8 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 3w  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* C  
*Ecological site:* R040XD007CA - Lacustrine Basin and Large River Floodplain  
*Hydric soil rating:* No

### **Minor Components**

#### **Meloland**

*Percent of map unit:* 10 percent

*Hydric soil rating:* No

#### **Holtville**

*Percent of map unit:* 9 percent

*Hydric soil rating:* No

### **Data Source Information**

Soil Survey Area: Imperial County, California, Imperial Valley Area

Survey Area Data: Version 14, Sep 1, 2022

## Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

*Sand* as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

*Silt* as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

*Clay* as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity ( $K_{sat}$ ), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

*Moist bulk density* is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

*Saturated hydraulic conductivity (Ksat)* refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

*Available water capacity* refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

*Linear extensibility* refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

*Organic matter* is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

*Erosion factors* are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

*Erosion factor Kw* indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor Kf* indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

*Erosion factor T* is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

*Wind erodibility groups* are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

*Wind erodibility index* is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (<http://soils.usda.gov>)

## Report—Physical Soil Properties

Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Physical Soil Properties—Imperial County, California, Imperial Valley Area														
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	<i>In</i>	<i>Pct</i>	<i>Pct</i>	<i>Pct</i>	<i>g/cc</i>	<i>micro m/sec</i>	<i>In/In</i>	<i>Pct</i>	<i>Pct</i>					
114—Imperial silty clay, wet														
Imperial, wet	0-12	- 5-	-45-	40-50- 60	1.40-1.45 -1.50	0.42-0.91-1.40	0.10-0.13-0.15	6.0- 7.5- 8.9	0.0- 0.5- 1.0	.28	.28	5	4	86
	12-60	-18-	-42-	35-40- 60	1.45-1.50 -1.55	1.40-2.70-4.00	0.10-0.14-0.18	6.0- 7.5- 8.9	0.0- 0.3- 0.5	.32	.32			
115—Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes														
Imperial, wet	0-12	-17-	-48-	30-35- 40	1.45-1.50 -1.55	1.40-2.70-4.00	0.13-0.16-0.18	3.0- 4.5- 5.9	0.0- 0.5- 1.0	.37	.37	5	6	48
	12-60	-18-	-42-	35-40- 60	1.45-1.50 -1.55	1.40-2.70-4.00	0.10-0.14-0.18	6.0- 7.5- 8.9	0.0- 0.3- 0.5	.32	.32			
Glenbar, wet	0-13	- 7-	-62-	27-31- 35	1.45-1.50 -1.55	1.40-2.70-4.00	0.15-0.18-0.21	3.0- 4.5- 5.9	0.0- 0.5- 1.0	.43	.43	5	6	48
	13-60	-27-	-42-	27-31- 35	1.40-1.45 -1.50	1.40-2.70-4.00	0.15-0.18-0.21	3.0- 4.5- 5.9	0.0- 0.3- 0.5	.43	.43			

## Data Source Information

Soil Survey Area: Imperial County, California, Imperial Valley Area

Survey Area Data: Version 14, Sep 1, 2022



## Rainfall Erosivity Factor Calculator for Small Construction Sites

EPA's stormwater regulations allow NPDES permitting authorities to waive NPDES permitting requirements for stormwater discharges from small construction sites if:

- the construction site disturbs less than five acres, and
- the rainfall erosivity factor ("R" in the revised universal soil loss equation, or RUSLE) value is less than five during the period of construction activity.

If your small construction project is located in an area where EPA is the permitting authority and your R factor is less than five, you qualify for a low erosivity waiver (LEW) from NPDES stormwater permitting. If your small construction project does not qualify for a waiver, then NPDES stormwater permit coverage is required. Follow the steps below to calculate your R-Factor.

LEW certifications are submitted through the NPDES eReporting Tool or "CGP-NeT". Several states that are authorized to implement the NPDES permitting program also accept LEWs. Check with your state NPDES permitting authority for more information.

- [Submit your LEW through EPA's eReporting Tool](#)
- [List of states, Indian country, and territories where EPA is the permitting authority.\(pdf\)](#)
- [Construction Rainfall Erosivity Waiver Fact Sheet](#)
- [Small Construction Waivers and Instructions.\(pdf\)](#)

The R-factor calculation can also be integrated directly into custom applications using the [R-Factor web service](#).

For questions or comments, email EPA's CGP staff at [cgp@epa.gov](mailto:cgp@epa.gov).

- Select the estimated start and end dates of construction by clicking the boxes and using the dropdown calendar.

The period of construction activity begins at initial earth disturbance and ends with final stabilization.

**Start Date:**  **End Date:**

- Locate your small construction project using the search box below or by clicking on the map.

**Location:**  **Search**







Click the "Calculate R Factor" button below to calculate an R Factor for your small construction project.

### Calculate R Factor

## Facility Information

<b>Start Date:</b> 01/04/2024	<b>Latitude:</b> 33.2273
<b>End Date:</b> 12/05/2024	<b>Longitude:</b> -115.5286

### Calculation Results

Rainfall erosivity factor (R Factor) = **8.23**

A rainfall erosivity factor of 5.0 or greater has been calculated for your site's period of construction.

**You do NOT qualify for a waiver from NPDES permitting requirements and must seek Construction General Permit (CGP) coverage.** If you are located in an [area where EPA is the permitting authority\\_\(pdf\)](#), you must submit a Notice of Intent (NOI) through the [NPDES eReporting Tool \(NeT\)](#). Otherwise, you must seek coverage under your state's CGP.



You are logged-in as: **James Holt**  
 If this account does not belong to you, please log out.

Navigate To:

**Risk**

The application is organized into different tabs. Please complete all applicable tabs before submitting the form. If you want to complete the application at a later time, please click on "Save & Exit".

<b>WDID/App ID:</b> - 565095	<b>Owner:</b> The Holt Group Inc	<b>Certified Date:</b>
<b>Status:</b> Not Submitted	1601 N Imperial Avenue El Centro CA 92243	<b>Processed Date:</b>
<b>Order No:</b> 2009-0009-DWQ	<b>Site:</b> Niland Wastewater Treatment Plant	<b>NOT Effective Date:</b>
<b>Permit Type:</b> Construction - NOI	125 West Alcott Road Niland CA 92257	<b>Previous ID:</b> -

- [Owner Info](#)
  - [Developer Info](#)
  - [Site Info](#)
  - [Risk](#)
  - [Addl. Site Info](#)
  - [Post Construction](#)
  - [Billing Info](#)
  - [Attachments](#)
  - [Certification](#)
  - [Reports](#)
  - [Inspections](#)
  - [Print](#)
- [Status History](#)
  - [Linked Users](#)
  - [NOTs](#)
  - [COIs](#)

<b>SEDIMENT RISK FACTOR WORKSHEET</b> Instructions: Enter R,K and LS factor values. System will calculate watershed erosion estimates and site sediment risk factor	
<b>A. Sediment Risk</b>	
A) R Factor Value: <a href="#">(What's this?)</a>	<input type="text" value="8.23"/> <a href="#">*Erosivity Calculator</a>
B) K Factor Value (weighted average, by area, for all site soils) <a href="#">(What's this?)</a> ***If not using the SWRCB map(Populate K Factor) upload your analysis on the Attachment Tab prior to submitting to the SWRCB.	<input type="text" value="0.43"/> * <input type="button" value="Populate K Factor"/>
C) LS Factor (weighted average, by area, for all slopes) <a href="#">(What's this?)</a> ***If not using the SWRCB map(Populate LS Factor) upload your analysis on the Attachment Tab prior to submitting to the SWRCB.	<input type="text" value="0.68213254"/> * <input type="button" value="Populate LS Factor"/>
<b>Watershed Erosion Estimate (=R*K*LS) in tons/acre</b>	
<input type="text" value="2.413998845806"/>	
<b>Site Sediment Risk Factor</b> Low Sediment Risk: < 15 tons/acre Medium Sediment Risk: >= 15 and <75 tons/acre High Sediment Risk: >= 75 tons/acre	
<input type="text" value="Low"/>	

<b>RECEIVING WATER (RW) RISK FACTOR WORKSHEET</b> A. Watershed Characteristics	
A.1.(a) Does the disturbed area discharge directly or indirectly to a 303(d) listed waterbody impaired by sediment?  <div style="text-align: center;"><u>OR</u></div> A.1.(b) Is the disturbed area located within a sub-watershed draining to a 303(d) listed waterbody impaired by sediment?  <div style="text-align: center;"><u>OR</u></div> A.2. Is the disturbed area located within a planning watershed draining to a waterbody with designated beneficial uses of COLD, SPAWN AND MIGRATORY?	<div style="text-align: center;"> <input type="button" value="Populate Receiving Water Risk"/>  <input type="text" value="Yes"/> *                     </div> <div style="text-align: center; margin-top: 10px;">                         Yes = High, No = Low   <a href="#">Statewide Map of High Receiving Water Risk Watersheds</a> </div> <div style="text-align: right; margin-top: 20px;"> <input type="text" value="High"/> </div>

<b>C. Combined Risk Level Matrix</b>							
	<b>Sediment Risk</b> Low      Medium      High						
<b>Receiving Water Risk</b>	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 33%; background-color: #00FFFF;">Level1</td> <td style="width: 33%; background-color: #FFFF00;">Level2</td> <td style="width: 33%; background-color: #FF0000;">Level3</td> </tr> <tr> <td style="background-color: #00FFFF;">Level2</td> <td style="background-color: #FFFF00;">Level3</td> <td style="background-color: #FF0000;">Level4</td> </tr> </table>	Level1	Level2	Level3	Level2	Level3	Level4
Level1	Level2	Level3					
Level2	Level3	Level4					
<b>Project Sediment Risk:</b>	<input type="text" value="Low"/>						
<b>Project Receiving Water Risk:</b>	<input type="text" value="High"/>						
<b>Project Combined Risk:</b>	<input type="text" value="Level2"/>						

- 
- 

Fields marked with \* are mandatory fields.

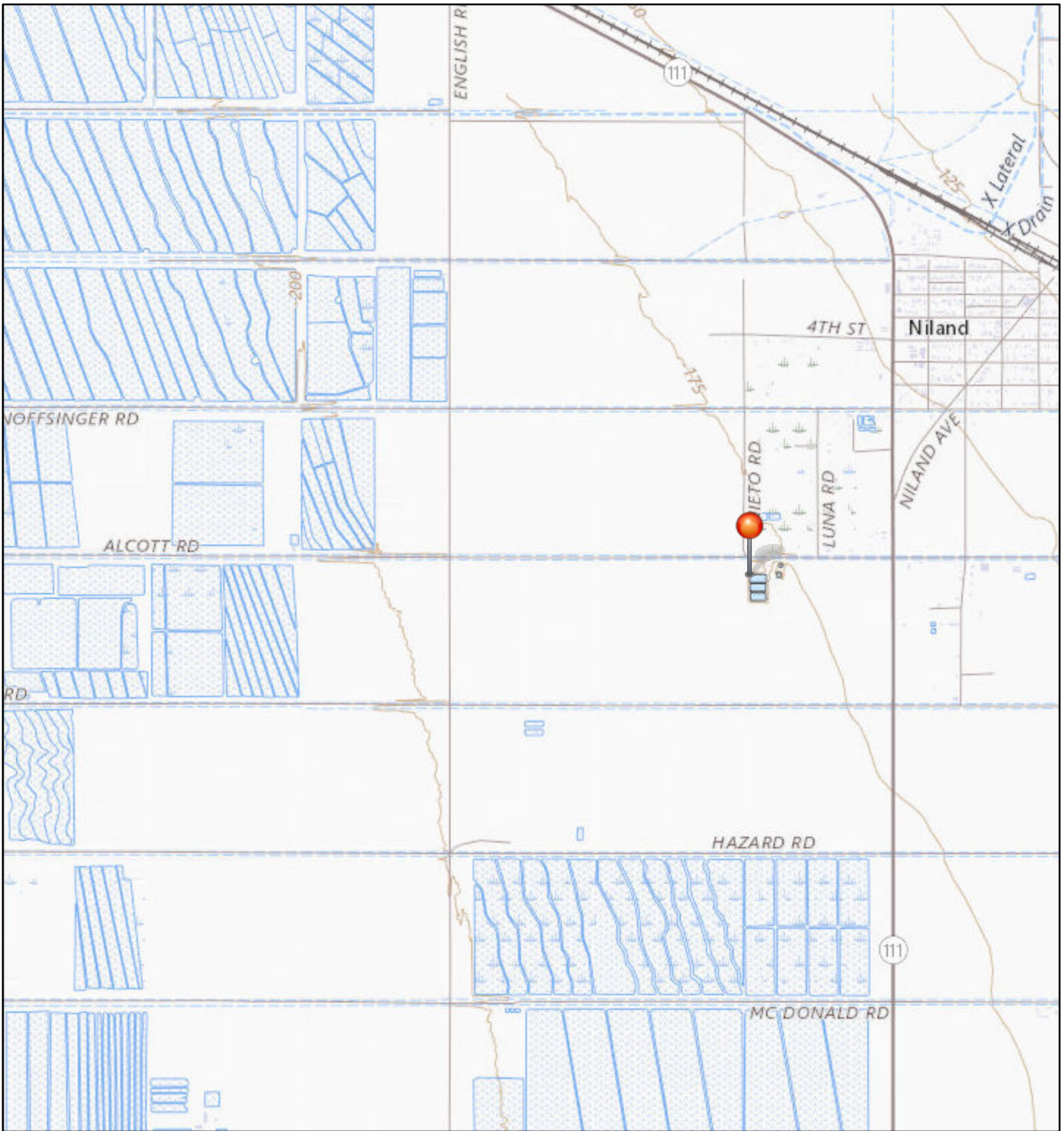


# ATTACHMENT D

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VICINITY MAP AND SITE MAP

# VICINITY MAP

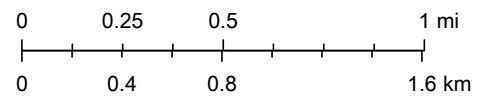


8/31/2023, 10:27:27 AM

1:36,112



Override 1



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census

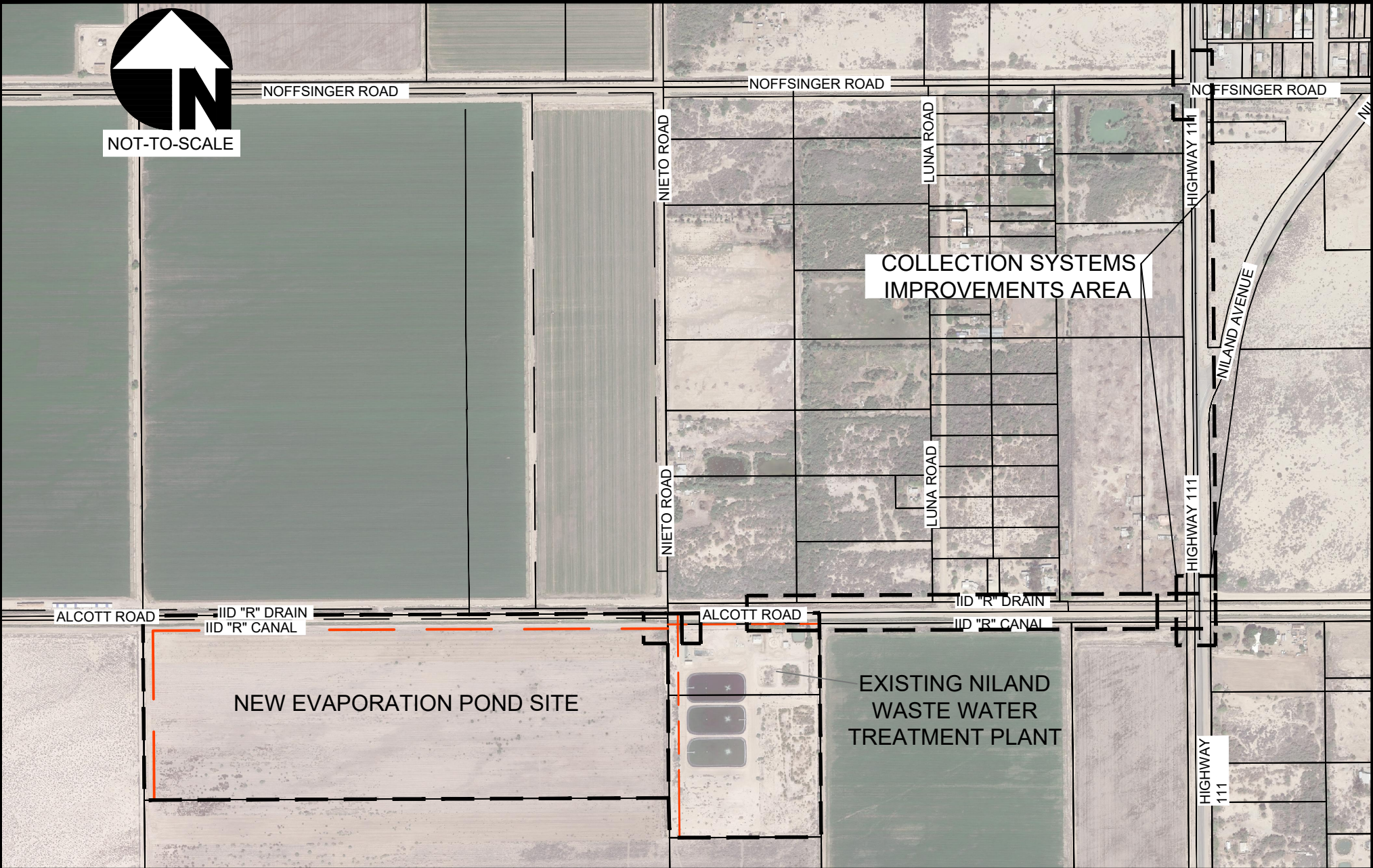
USGS  
2021 USGS



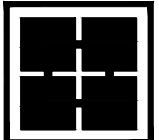
C:\Users\adial\The Holt Group\542.089 - 542.089\04 - CAD & PDF DRAWINGS\542.089 - SITE MAP SWPPP.dwg 08/31/2023 15:54



NOT-TO-SCALE



**The Holt Group**  
ENGINEERING PLANNING SURVEYING



201 E. Hobsonway Blythe, Ca 92225  
1601 N. Imperial Ave. El Centro, Ca 92243

760.922.4658  
760.337.3883

COUNTY OF IMPERIAL - NILAND COUNTY SANITATION DISTRICT  
WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEMS IMPROVEMENTS  
SITE MAP

NILAND, IMPERIAL COUNTY, CA

JOB NUMBER: 542.089

DATE: 9/01/23

SHEET: 1  
OF 1 SHEETS

BY: RS

# ATTACHMENT E

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CONTRACTOR PERSONNEL STORMWATER TRAINING

# ATTACHMENT F

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OTHER PLANS / PERMITS / AGREEMENTS

# ATTACHMENT AA

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SWPPP AMENDMENTS



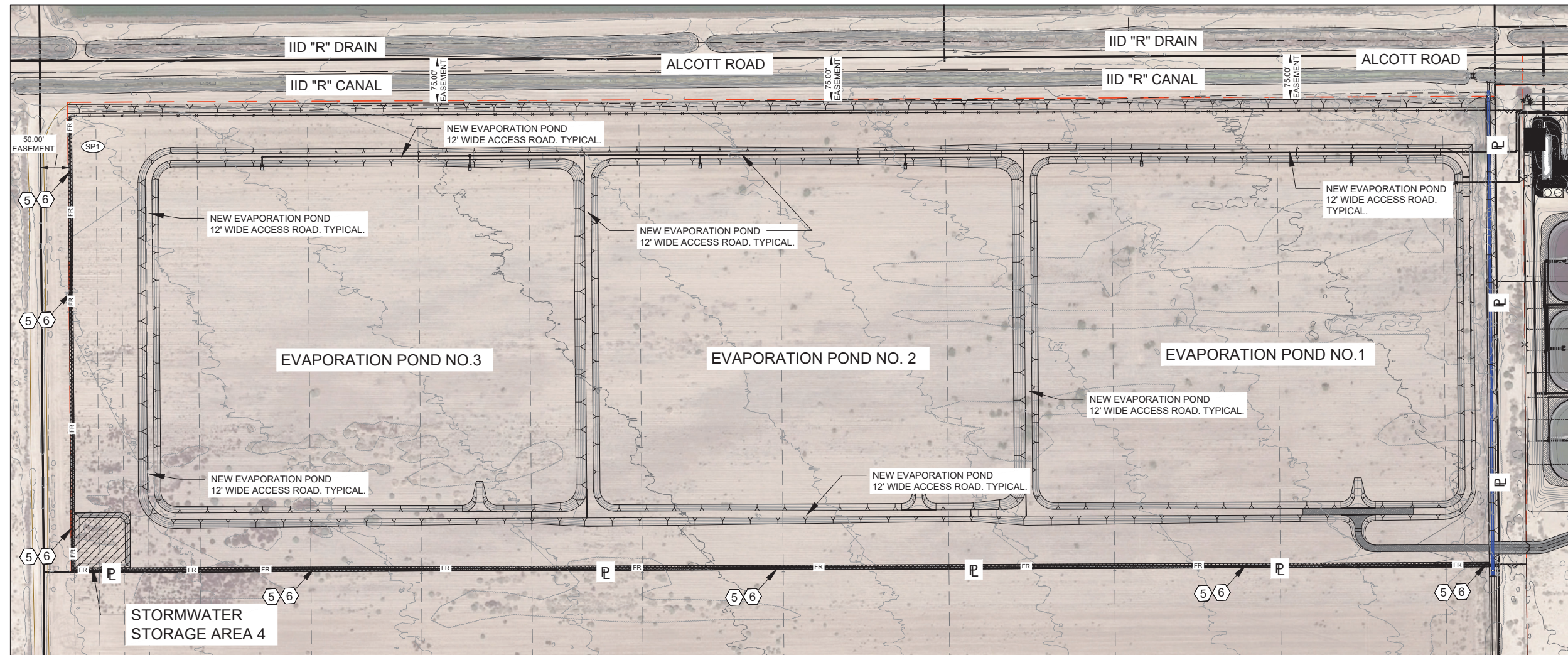
# ATTACHMENT BB

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WATER POLLUTION CONTROL DRAWINGS







**BMP KEYNOTES**

- ① CONTRACTOR SHALL LOCATE THE PORTABLE RESTROOM FACILITIES IN THE STAGING AREA. INSTALL TWO (2) PORTABLE RESTROOM FACILITIES. SEE DETAIL E5 FOR TYPICAL STAGING AREA ON SHEET 38.
- ② INSTALL TWO (2) LAYER GRAVEL-FILLED BAGS. SEE DETAIL E3 ON SHEET 38.
- ③ INSTALL CONCRETE WASHOUT AREA. SEE DETAIL E4 ON SHEET 38.
- ④ INSTALL CONSTRUCTION ENTRANCE PER DETAIL E1 AND E5 ON SHEET 38.
- ⑤ INSTALL FIBER ROLLS PER DETAIL E2 ON SHEET 38. INSTALL FIBER ROLLS ON INTERIOR OF DIRT BERM TOE OF SLOPE, SEE BMP KEYNOTE 6.
- ⑥ INSTALL DIRT BERM PER DETAIL I ON SHEET 27.

**LEGEND**

PORTABLE TOILET	
GRAVEL BAGS	
CONCRETE WASHOUT AREA	
CONSTRUCTION ENTRANCE	
FIBER ROLLS	FR
SAMPLE POINT	SP1
DIRT BERM	

**GENERAL EROSION CONTROL NOTES:**

1. EROSION CONTROL PLAN INCLUDES ALL POSSIBLE BMPs FOR THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL APPLY APPROPRIATE BMPs FOR EACH PHASE OF CONSTRUCTION.
2. STREET SWEEPING (DURING MASS GRADING ACTIVITIES, STREETS WILL BE SWEEPED AS NECESSARY TO PREVENT DIRT AND DUST FROM LEAVING THE CONSTRUCTION AREA).
3. CONTRACTOR SHALL PROVIDE ADEQUATE DUST SUPPRESSION TO MEET ALL COUNTY OF IMPERIAL AIR POLLUTION CONTROL DISTRICT REQUIREMENTS.
4. ALL BEST MANAGEMENT PRACTICES SHALL MEET THE REQUIREMENTS OF THE LATEST VERSION OF CALTRANS CONSTRUCTION SITE BMP FACT SHEETS.
5. SITE DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
6. NO SITE CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.
7. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
8. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.

**NOTE:**  
THE ENTIRE PROJECT AREA IS THE DRAINAGE AREA, EXCLUDING THE AERATION PONDS, THE EVAPORATION PONDS, SLUDGE CONTAINMENT BASIN, AND RAW WATER POND.

<b>REVISION</b>	<b>DATE</b>	<b>COMMENTS</b>		PREPARED UNDER THE DIRECT SUPERVISION OF:  JAMES G. "JACK" HOLT 09/15/2023 DATE	31773 R.C.E. No. 12/31/24 REG. EXP.		COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY:  JOHN GAY, P.E. DIRECTOR OF PUBLIC WORKS DATE	62028 R.C.E. No. 09/30/25 REG. EXP.		PUBLIC WORKS DEPARTMENT <b>COUNTY OF IMPERIAL</b> EL CENTRO, CALIFORNIA	DATE: 09/15/2023 DRAWN: RS DESIGNED: RS SCALE: N/A CHECKED: JGH	PROJECT TITLE <b>COUNTY OF IMPERIAL          NILAND COUNTY SANITATION DISTRICT - WASTEWATER          TREATMENT PLANT AND COLLECTION SYSTEM IMPROVEMENTS</b>  <b>EVAPORATION POND          EROSION CONTROL PLAN</b>	REFERENCE  THG #542.089 SHEET 37 OF 45
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# ATTACHMENT CC

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## WATER POLLUTION CONTROL BEST MANAGEMENT PRACTICES LIST

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**ATTACHMENT CC WATER POLLUTION CONTROL**  
**BEST MANAGEMENT PRACTICES LIST**

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
CONTRACTOR NAME AND SITE ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3

**Water Pollution Control Best Management Practices List (WPCBMPL)**

Project Phases included in WPCBMPL <input type="checkbox"/> Preliminary Phase <input type="checkbox"/> Grading Phase <input type="checkbox"/> Highway Construction Phase <input type="checkbox"/> Highway Planting / Erosion Control Phase	Projected Stages included in WPCBMPL <input type="checkbox"/> 1 Stage <input type="checkbox"/> 2 Stages <input type="checkbox"/> 3 Stages <input type="checkbox"/> 4 Stages
--	---

Project Required BMP	Best Management Practice (BMP)	BMP ID	Total Quantity Required
<b>TEMPORARY SOIL STABILIZATION</b>			
<input type="checkbox"/>	Preservation of Existing Vegetation	SS-02	
<input type="checkbox"/>	Hydraulic Mulch	SS-03	
<input type="checkbox"/>	Hydroseeding	SS-04	
<input type="checkbox"/>	Soil Binders	SS-05	
<input type="checkbox"/>	Straw Mulch	SS-06	
<input type="checkbox"/>	Geotextiles, Mats, Plastic Covers, and Erosion Control Blankets	SS-07	
<input type="checkbox"/>	Wood Mulching	SS-08	
<input type="checkbox"/>	Earth Dikes/Drainage Swales, and Lined Ditches	SS-09	
<input type="checkbox"/>	Outlet Protection/Velocity Dissipation Devices	SS-10	
<input type="checkbox"/>	Slope Drains	SS-11	
<input type="checkbox"/>	Streambank Stabilization	SS-12	
<b>TEMPORARY SEDIMENT CONTROL</b>			
<input type="checkbox"/>	Silt Fence	SC-01	
<input type="checkbox"/>	Sediment/Distilling Basin	SC-02	
<input type="checkbox"/>	Sediment Trap	SC-03	
<input type="checkbox"/>	Check Dams	SC-04	
<input type="checkbox"/>	Fiber Rolls	SC-05	
<input type="checkbox"/>	Gravel Bad Berm	SC-06	
<input type="checkbox"/>	Sandbag Barrier	SC-08	
<input type="checkbox"/>	Straw Bale Barrier	SC-09	
<input type="checkbox"/>	Storm Drain Inlet Protection	SC-10	



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PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

**Water Pollution Control Best Management Practices List**

Project Required BMP	Best Management Practice (BMP)	BMP ID	Total Quantity Required
<b>WIND EROSION CONTROL</b>			
<input type="checkbox"/>	Wind Erosion Control	WE-01	
<b>TRACKING CONTROLS</b>			
<input type="checkbox"/>	Stabilized Construction Entrance/Exit	TC-01	
<input type="checkbox"/>	Stabilized Construction Roadway	TC-02	
<input type="checkbox"/>	Entrance/Exit Tire Wash	TC-03	
<input type="checkbox"/>	Street Sweeping	SC-07	
<b>NON-STORMWATER MANAGEMENT</b>			
<input type="checkbox"/>	Water Conservation Practices	NS-01	
<input type="checkbox"/>	Dewatering Operations	NS-02	
<input type="checkbox"/>	Paving and Grinding Operations	NS-03	
<input type="checkbox"/>	Temporary Stream Crossing	NS-04	
<input type="checkbox"/>	Clear Water Diversion	NS-05	
<input type="checkbox"/>	Illicit Connection/Illegal Discharge Detection and Reporting	NS-06	
<input type="checkbox"/>	Potable Water/Irrigation	NS-07	
<input type="checkbox"/>	Vehicle and Equipment Cleaning	NS-08	
<input type="checkbox"/>	Vehicle and Equipment Fueling	NS-09	
<input type="checkbox"/>	Vehicle and Equipment Maintenance	NS-10	
<input type="checkbox"/>	Pile Driving Operations	NS-11	
<input type="checkbox"/>	Concrete Curing	NS-12	
<input type="checkbox"/>	Material and Equipment Use Over Water	NS-13	
<input type="checkbox"/>	Concrete Finishing	NS-14	
<input type="checkbox"/>	Structure Demolition/Removal Over or Adjacent to Water	NS-15	
<b>WASTE MANAGEMENT AND POLLUTION CONTROL</b>			
<input type="checkbox"/>	Material Delivery and Storage	WM-01	
<input type="checkbox"/>	Material Use	WM-02	
<input type="checkbox"/>	Stockpile Management	WM-03	
<input type="checkbox"/>	Spill Prevention and Control	WM-04	
<input type="checkbox"/>	Solid Waste Management	WM-05	
<input type="checkbox"/>	Hazardous Waste Management	WM-06	
<input type="checkbox"/>	Contaminated Soil Management	WM-07	
<input type="checkbox"/>	Concrete Waste Management	WM-08	
<input type="checkbox"/>	Sanitary/Septic Waste Management	WM-09	
<input type="checkbox"/>	Liquid Waste Management	WM-10	

**ADA Notice**

This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**ATTACHMENT CC WATER POLLUTION CONTROL**  
**BEST MANAGEMENT PRACTICES LIST**

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER

No.	Water Pollution Control Best Management Practices List			
1	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
		Stage:		
	<b>Best Management Practice (BMP)</b>		<b>BMP ID</b>	<b>Quantity Required</b>
Comments:				
2	Location:	Project Phase:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
		Stage:		
	<b>Best Management Practice (BMP)</b>		<b>BMP ID</b>	<b>Quantity Required</b>
Comments:				

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
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PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road	CONTRACT NUMBER/CO/RTE/PM  PROJECT IDENTIFIER NUMBER
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No.	Water Pollution Control Best Management Practices List																																	
	Location:  _____	Project Phase:  Stage:	Location shown on WPCD sheet number:  _____	Disturbed Soil Area:  _____ acres																														
	<table border="1"> <thead> <tr> <th>Best Management Practice (BMP)</th> <th>BMP ID</th> <th>Quantity Required</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Best Management Practice (BMP)	BMP ID	Quantity Required																														
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	<table border="1"> <thead> <tr> <th>Best Management Practice (BMP)</th> <th>BMP ID</th> <th>Quantity Required</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Best Management Practice (BMP)	BMP ID	Quantity Required																														
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	Comments:																																	



STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**ATTACHMENT CC WATER POLLUTION CONTROL**  
**BEST MANAGEMENT PRACTICES LIST**

CEM-20-CC (REV 03/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements 125 West Alcott Road	CONTRACT NUMBER/CO/RTE/PM  PROJECT IDENTIFIER NUMBER
--	--

No.	Water Pollution Control Best Management Practices List			
	Location:	Project Phase: Stage:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
	<b>Best Management Practice (BMP)</b>		<b>BMP ID</b>	<b>Quantity Required</b>
	Comments:			
	Location:	Project Phase: Stage:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
	<b>Best Management Practice (BMP)</b>		<b>BMP ID</b>	<b>Quantity Required</b>
	Comments:			
	Location:	Project Phase: Stage:	Location shown on WPCD sheet number:	Disturbed Soil Area: _____ acres
	<b>Best Management Practice (BMP)</b>		<b>BMP ID</b>	<b>Quantity Required</b>
	Comments:			

# ATTACHMENT DD

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WATER POLLUTION CONTROL SCHEDULE

# ATTACHMENT EE

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STORMWATER SAMPLING LOCATIONS



**SWPPP ATTACHMENT EE  
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--	---------------------------	---------------------------

**STORMWATER SAMPLING LOCATIONS CONTINUED**

Instruction: Include the following Table for all Risk Levels when dewatering will be performed on the project site. Delete the Table if there is no dewatering planned for the project site.

**Project Site Dewatering Sampling Locations**

SWPPP Table 700.2.3.3.2.1

Location No.	Location	Dewatering Permit?	Pollutant From Construction Activity	Water Quality Indicator Constituent
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		

Instruction: Include the following Table for all Risk Levels when there is a potential for impounded stormwater that will have to be discharged from the project site.

**Project Site Potential Impounded Stormwater Sampling Locations**

(SWPPP Table 700.2.3.3.2.2)

Location No.	Location	Dewatering Permit?	Pollutant From Construction Activity	Water Quality Indicator Constituent
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		
		<input type="checkbox"/> YES <input type="checkbox"/> NO		

Instruction: Include the following Table for all Risk Levels when there are dewatering activities or a potential for impounded stormwater that will have to be discharged from the project site and there is a high risk receiving water.

**Project Site Potential Dewatering/Impounded Stormwater Sampling Locations and Receiving Water Sampling Locations**

(SWPPP Table 700.2.3.3.2.3)

Dewatering/ Impounded Stormwater Location No.	Location	Receiving Water Location No.	Location

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**SWPPP ATTACHMENT EE  
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--	---------------------------	---------------------------

**STORMWATER SAMPLING LOCATIONS CONTINUED**

Instruction: Include the following Table for Risk Level 2 and Risk Level 3 projects. Delete the Table for Risk Level 1 projects.

**Project Site Discharge Sampling Locations for Turbidity and pH**

SWPPP Table 700.2.4.3.2.1

Location No.	Location	Drainage Area (acres)	Disturbed Soil Area (acres)	Percentage of Drainage Area that is Disturbed Soil Area (%)	Are there construction activities that may affect pH of stormwater discharges?
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO

Instruction: Include the following Table for Risk Level 2 and Risk Level 3 when project site has discharge locations that discharge directly to a receiving water. Delete the Table for Risk Level 1 projects.

**Receiving Water Sampling Locations for Turbidity and pH When Project Site Discharges Directly To The Receiving Water**

SWPPP Table 700.2.4.3.2.2

Location No.	Location	Drainage Area (acres)	Disturbed Soil Area (acres)	Percentage of Drainage Area that is Disturbed Soil Area (%)	Are there construction activities that may affect pH of stormwater discharges?
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO
					<input type="checkbox"/> YES <input type="checkbox"/> NO

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**SWPPP ATTACHMENT EE  
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--	---------------------------	---------------------------

**STORMWATER SAMPLING LOCATIONS CONTINUED**

Instruction: Include the following Table for all Risk Levels. Delete the Table for Risk Level 1 projects if there are no project site run-on locations.

**Project Site Run-on Sampling Locations**

SWPPP Table 700.2.4.3.2.4

Location No.	Location	Run-on May Affect Water Quality Discharged at Project Site Discharge Location No.	Is there any off-site disturbed soil area that could affect run-on water quality at this location?	Are there any off-site pollutants identified that could affect run-on water quality at this location?	Identified Potential Off-site Pollutants
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	

Instruction: Include the following Table for all Risk Level 3 projects. Delete the Table for Risk Level 1 and Risk Level 2 projects.

**Receiving Water Sampling Locations**

SWPPP Table 700.2.4.3.2.5

Location No.	Location	Project Site Discharge Location No.	Do discharges from this project site discharge location reach receiving water?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

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**SWPPP ATTACHMENT EE  
STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--	---------------------------	---------------------------

**STORMWATER SAMPLING LOCATIONS CONTINUED**

Instruction: Include the following Table when the RWQCB has requested specific water quality standard monitoring of project site discharge locations.

**Stomwater Discharge Locations Required To Be Monitored By RWQCB**

SWPPP Table 700.5.3.2.1

Location No.	Location	Water Quality Standard(s)	Is there potential site run-on that may affect water quality standard(s)?
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

Instruction: Include the following Table when the RWQCB has requested specific water quality standard monitoring of receiving waters.

**Receiving Water Sampling Locations Required To Be Monitored By RWQCB**

SWPPP Table 700.2.4.3.2.5

Location No.	Location	Water Quality Standard(s)

Instruction: Include the following Table when the project receives run-on with the potential to combine with stormwater discharges locations or receiving waters that require RWQCB specified water quality monitoring.

**Run-on Locations With Potential To Combine With Stormwater Discharges Required To Be Monitored By RWQCB**

SWPPP Table 700.2.5.3.2.4

Location No.	Location	Water Quality Standard(s)

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**SWPPP ATTACHMENT EE**  
**STORMWATER SAMPLING LOCATIONS**

CEM-20EE (NEW 9/2012)

PROJECT NAME Niland County Sanitation District - Wastewater Treatment Plant and Collections System Improvements	CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER
--	---------------------------	---------------------------

**STORMWATER SAMPLING LOCATIONS CONTINUED**

Instruction: Include the following Table for Risk Level 3 when an active treatment system will be used on the project site. Delete the Table if active treatment system is not planned to be used on the project site.

**Active Treatment System (ATS) Sampling Locations**

SWPPP Table 700.2.6.3.2

Location No.	Location	Chemical/Additive Used in Active Treatment System	Residual Chemical/Additive Indicator Constituent

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# APPENDIX A

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CEM-2008 SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE FORM

**SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE**

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL
	<input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP
	<input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002.
	<input type="checkbox"/> Risk Level 3

**Storm Water Pollution Prevention Plan (SWPPP)/Water Pollution Control Program (WPCP)  
Amendment Number \_\_\_\_\_**

CONTRACTOR WATER POLLUTION CONTROL MANAGER SIGNATURE	DATE
CONTRACTOR WATER POLLUTION CONTROL MANAGER NAME	PHONE NUMBER

**Contractor Certification of SWPPP or WPCP Amendment**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CONTRACTOR SIGNATURE	DATE
CONTRACTOR NAME	PHONE NUMBER
TITLE	

**Resident Engineer Acceptance of SWPPP or WPCP Amendment**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RESIDENT ENGINEER SIGNATURE	DATE OF AMENDMENT ACCEPTANCE
RESIDENT ENGINEER NAME	PHONE NUMBER

**SWPPP/WPCP AMENDMENT CERTIFICATION AND ACCEPTANCE**

CEM-2008 (REV 11/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Required for Private Entity Administered Projects**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief is true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

LEGALLY RESPONSIBLE PERSON SIGNATURE	DATE
LEGALLY RESPONSIBLE PERSON NAME	PHONE NUMBER
TITLE	

**Required for Local Agency/Private Entity Administered Project****Caltrans Oversight Engineer's Concurrence With SWPPP/WPCP Amendment**

I and personnel acting under my direction and supervision have reviewed this SWPPP/ WPCP and find that it meets the requirements set forth in the contract Special Provisions, Caltrans *Standard Specifications*, and the Caltrans SWPPP/WPCP Preparation Manual.

OVERSIGHT ENGINEER SIGNATURE	DATE OF AMENDMENT CONCURRENCE
OVERSIGHT ENGINEER NAME	PHONE NUMBER

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## Instructions

### General Information

- The information on CEM-2008 is required for projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) to document amendment acceptance and certification.
- SWPPP amendments must be certified by the approved signatory as identified in CEM-2006 or 2006T, "Legally Responsible Person Authorization of Approved Signatory," signed by the legally responsible person (LRP).
  1. For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be approved signatory.
  2. For a local agency, the LRP is either a principal executive officer or a ranking elected official. The local agency LRP may authorize the project resident engineer to be approved signatory.
  3. For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
    - a. For a corporation, a responsible corporate officer.
    - b. For a partnership or sole proprietorship, a general partner or the proprietor, respectively.The private entity LRP may not authorize an approved signatory.
  4. Attach a completed copy of CEM-2008 to each SWPPP or WPCP amendment, and include it in the SWPPP Attachment DD or the WPCP Attachment C.

### Form

#### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

#### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number. For projects without one, write "N/A" in the field.

#### WDID Number

For projects that have a Water Pollution Control Program enter "WPCP" in this field.

# APPENDIX B

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CEM-2009 SWPPP/WPCP AMENDMENTS LOG FORM



## SWPPP/WPCP AMENDMENTS LOG

CEM-2009 (REV 11/2013)

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### Instructions

#### General Information

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require the information on this form to track amendments.
- Attach a completed copy of the form to each accepted SWPPP/WPCP amendment, and include in SWPPP Attachment DD or WPCP Attachment C.

#### Form

##### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

##### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a project identifier number. For projects without one, write "N/A" in the field.

##### WDID Number

For projects with WPCP enter "WPCP" in this field.

When the resident engineer has accepted SWPPP or WPCP amendments, enter:

1. The amendment number.
2. The date the Water Pollution Control Manager signed form CEM-2008.
3. A brief description of the amendment.
4. The name and title of person who requested the amendment.
5. The date the resident engineer accepted form CEM-2008.



# APPENDIX C

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CEM-2070 SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE FORM



**SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE**

CEM-2070 (REV 12/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Required for Private Entity Administered Projects  
Private Entity Legally Responsible Person Annual Certification of Compliance**

I certify that the project is in compliance with the project site approved Stormwater Pollution Prevention Plan or Water Pollution Control Program including approved amendments. The project site and activities thereon are in compliance with the Caltrans Statewide NPDES Permit No. CAS000003, the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002, or Order No. R6T-2011-0019, NPDES No. CAG-616002, whichever is applicable.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Legally responsible person signature	Date
Legally responsible person name	Phone number
Title	

**SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE**

CEM-2070 (REV 12/2013)

Page 3 of 4

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Resident Engineer Approval of Annual Certification of Compliance**

An inspection of the project site for annual certification of compliance was conducted on (date) _____	Annual Certification of Compliance project site inspection conducted by _____
--	---

I certify that I, or personnel acting under my direction and supervision, have inspected the project site and find the following:

- Yes     No    Water pollution control measures are being implemented in accordance with the SWPPP or WPCP approved for the project, including approved SWPPP/WPCP amendments.
- Yes     No    The project site and activities thereon are in compliance with the Caltrans Statewide NPDES Permit No. CAS000003, the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002, or Order No. R6T-2011-0019, NPDES No. CAG-616002, whichever is applicable.

The box above is checked "no" based on the project site annual certification inspection, and the following corrective actions are necessary for the project to be in compliance with SWPPP/WPCP or NPDES Permits

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that significant penalties exist for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Resident engineer signature	Date of approval
Resident engineer name	Phone number

**Required for Local Agency or Private Entity-Administered Project  
Caltrans Oversight Engineer's Concurrence With Annual Certification of Compliance**

I, or personnel acting under my direction and supervision, have reviewed this Annual Certification of Compliance and concur that the project is in compliance with SWPPP or WPCP approved for the project, including approved SWPPP/WPCP amendments and applicable NPDES Permits.

Oversight engineer signature	Date of concurrence
Oversight engineer name	Phone number

## SWPPP/WPCP ANNUAL CERTIFICATION OF COMPLIANCE

CEM-2070 (REV 12/2013)

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### Instructions

#### General Information

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require an Annual Certification of Compliance by July 15th of each year.
- Document the project site inspection for annual certification on form CEM-2030, "Stormwater Site Inspection Report."
- A legally responsible person (LRP) or a signatory approved by the LRP must certify the Stormwater Pollution Prevention Plan Annual Certification of Compliance.
  - For Caltrans, the LRP is the district director. The LRP may authorize the project resident engineer to be the approved signatory.
  - For a local agency, the LRP is either a principal executive officer or ranking elected official. The local agency's LRP may authorize the project resident engineer to be the approved signatory. If the local agency's LRP has not approved the local agency's resident engineer to be an approved signatory then the local agency's LRP must sign in the resident engineer signature box of the Annual Certification of Compliance.
  - For a private entity performing work in the state right-of-way under an encroachment permit, the LRP must be one of the following:
    - For a corporation—a responsible corporate officer.
    - For a partnership or sole proprietorship—a general partner or the proprietor, respectively.
    - The private entity's LRP may not authorize an approved signatory.
- File a completed copy of this form in SWPPP/WPCP file category 20.70, Annual Certification of Compliance.
- This form is used for Annual Certification as well as replaces form CEM-2001.

#### Form

##### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

##### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write "N/A" in the field.

##### WDID Number

For projects that have Water Pollution Control Program, enter "WPCP" in this field.

##### SWPPP Projects Site Risk Level

Check the box for the appropriate SWPPP risk level, or N/A for projects residing in the Lake Tahoe Hydrologic Unit, or N/A for projects that have Water Pollution Control Program.

# APPENDIX D

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SUBCONTRACTOR / MATERIAL SUPPLIER NOTIFICATION LETTER AND CONTACT  
INFORMATION

Appendix D

SUBCONTRACTOR	WORK TO BE PERFORMED	CONTACT INFO.
		TBD

# APPENDIX E

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CEM-2023 STORMWATER TRAINING RECORD FORM







**STORMWATER TRAINING RECORD**

CEM-2023 (REV 11/2013)

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## Instructions

**General Information**

- Projects with either a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Program (WPCP) require the information on this form to document stormwater training for contractor and subcontractor managers, supervisors, and employees. Include the form and required training documentation in the stormwater annual report for SWPPP projects.
- Use this form to document training for employees responsible for activities associated with Construction General Permit compliance and contract specifications. Use this form to document required weekly stormwater training.
- Provide this training record and an updated copy of CEM-2024 (CEM-2024 is an optional form used at the WPCM's discretion) "Stormwater Training Log," to the resident engineer (RE) within five days of the date of training.
- Attach additional copies of page 2 of this form if necessary to record all individuals attending this training.
- Stormwater training needs to be completed at the frequency stipulated in the project specifications and/or the SWPPP, whichever is more frequent.
- Names may be written or typed. Initials must be original. Originals are filed with RE as stipulated above.
- Attach copy of training material/topic with submittal to RE.

**Form**

- **Contract Number/Co/Rte/PM**  
For local agency encroachment permit projects write the encroachment permit number in the Contract Number field.
- **Project Identifier Number**  
Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.
- **WDID Number**  
For projects with Water Pollution Control Program, enter "WPCP."
- **Attendee Roster**  
Enter employee name, contractor or subcontractor company name and employee phone number.
- **Training Audience**  
Enter one of the following responses:  
  
General—Training for individuals responsible for activities associated with compliance with the Construction General Permit.  
  
BMPs—Training for individuals responsible for BMP installation, inspection, maintenance, and repair.  
  
SWPPP—Training for individuals responsible for overseeing, revising, and amending the SWPPP.

# APPENDIX F

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CEM-2024 STORMWATER TRAINING LOG-OPTIONAL FORM

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

**STORMWATER TRAINING LOG**

Date of Training	Training Audience	Number of Training Attendees	Stormwater Training Course Title or Topics Covered	Date Training Documentation (CEM-2023) Provided to Resident Engineer
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			
	<input type="checkbox"/> General <input type="checkbox"/> BMPs <input type="checkbox"/> SWPPP			

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## Instructions

### General Information

- For projects with either a Stormwater Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) the information shown on this form may be used to document stormwater training for contractor and subcontractor managers, supervisors, and employees. The stormwater annual report for SWPPP projects will include required training documentation and the information on this form, or in another form used at the discretion of the Water Pollution Control Manager (WPCM).
- If this form is used, provide an updated copy of CEM-2024 with attached training documentation to the resident engineer within five days of training, along with CEM-2023 and a copy of training materials and topic(s) covered.
- This form is optional, and provided as a management tool for the WPCM to assist in compiling and organizing information required of the annual report.

### Form

#### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

#### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.

#### WDID Number

For projects with Water Pollution Control Program enter "WPCP" in this field.

#### Training Audience

Check one of the following responses:

- General—training for individuals responsible for activities associated with compliance with the General Construction Permit.
  - BMPs—training for individuals responsible for BMP installation, inspection, maintenance, and repair.
  - SWPPP—training for individuals responsible for overseeing revising and amending the SWPPP.
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# APPENDIX G

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CEM-2030 STORMWATER SITE INSPECTION REPORT

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in The Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2016-0010, NPDES No. CAG616002 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE
WATER POLLUTION CONTROL MANAGER NAME AND COMPANY NAME	PHONE NUMBER
	EMERGENCY (24/7) PHONE NUMBER

**GENERAL INFORMATION**

INSPECTOR'S NAME	Accompanied by Caltrans staff? <input type="checkbox"/> Yes <input type="checkbox"/> No    If Yes, Name/Initials _____	DATE OF INSPECTION
------------------	---	--------------------

Weather Condition <input type="checkbox"/> Clear <input type="checkbox"/> Partly cloudy <input type="checkbox"/> Cloudy	Precipitation Condition <input type="checkbox"/> None <input type="checkbox"/> Heavy rain <input type="checkbox"/> Misty <input type="checkbox"/> Hail <input type="checkbox"/> Light rain <input type="checkbox"/> Snow <input type="checkbox"/> Rain	Wind Condition <input type="checkbox"/> None <input type="checkbox"/> Less than 5 mph <input type="checkbox"/> Greater than 5 mph
--	--	--

Construction Phase <input type="checkbox"/> Highway construction <input type="checkbox"/> Plant establishment <input type="checkbox"/> Suspension of work (inactive site)	Site Information Total project area _____ acres Total project disturbed soil area _____ acres Current phase disturbed soil area _____ acres Current phase inactive disturbed soil _____ acres
--	---

Inspection Type <i>Check appropriate box(es)</i>	Storm Information	
<input type="checkbox"/> Weekly <input type="checkbox"/> Annual Certification of Compliance <input type="checkbox"/> Quarterly non-stormwater	Time elapsed since last storm _____ days	Precipitation amount from last storm _____ inches
<input type="checkbox"/> Pre-storm	Time storm is expected _____ (time) _____ (date)	Expected precipitation amount _____ inches
<input type="checkbox"/> During storm event	Time elapsed since storm began _____ hours-minutes	Precipitation amount from storm recorded from site rain gauge _____ inches
<input type="checkbox"/> Post storm	Time elapsed since storm _____ hours-minutes	Precipitation amount from storm recorded from site rain gauge _____ inches

Date	Daily Site Inspection of Best Management Practices (BMP) List Daily inspections for previous calendar week. Do not include weekly inspection.	Daily inspection performed by	Any corrective actions identified as completed or new?		If yes, were the actions added or verified on CEM-2035, as appropriate?		Date shown on corrective action form
			YES	NO	YES	NO	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Site Inspection of Best Management Practices, continued**  
 For project specific BMPs, insert the BMP name and additional inspection requirements below.

<b>Temporary Linear Sediment Barriers</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Right location?		Properly installed or cross barriers installed?		Maintenance performed when 1/3 height or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

<b>Storm Drain Inlet Protection</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	All inlets protected?		Properly installed?		Maintenance or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

<b>Stockpile Management</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date stockpile created	Is the stockpile listed as a location on stockpile management inactive stockpiles? If yes, stop here.		Is there a storm event forecasted? If yes, stop here and take action.		Is stockpile being actively used? If yes, stop here.		If no to previous question, what is the last day stockpile was actively used?	How long since stockpile actively used?	Has it been 3 days since the stockpile has been actively used? If yes, take action.		
		Date	Yes	No	Yes	No	Yes	No	Date	Days	Yes	No
Location 1												
Location 2												

Notes:

1. If it has been 3 days (72 hours) since a stockpile has been active then the stockpile is inactive and must be reported as a location on stockpile management inactive stockpiles.
2. Stockpiles must be covered and have perimeter control installed prior to a storm event.

Location Number	Comments / Corrective Actions	Photos?	Action No.
		Yes	
1			
2			

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Inactive Stockpile Management	Type of Material or Waste	Is the stockpile properly located?		Is the stockpile covered?		Does the stockpile have a perimeter control?		Does the stockpile need maintenance or repair?		
		Yes	No	Yes	No	Yes	No	Yes	No	
										Photos?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Location 1										
Location 2										
Location Number	Comments / Corrective Actions								Photos?	Action No.
1									Yes	
2										

Sediment and Desilting Basins	Are basin inlets, outlets, and spillways in working order?		Is water contained in basin?		Is maintenance needed to provide required retention or detention?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Location 1									
Location 2									
Location 3									

Tracking Controls	Do all entrances and exits have tracking controls?		Is pavement free from visible sediment tracking?		Does sediment need to be removed from rock or ribbed plates?		Is daily sweeping done?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes	No	Yes		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Location 1											
Location 2											
Location 3											

Wind Erosion Control	Water trucks on-site?		Visible dust?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Location 1							
Location 2							
Location 3							

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

Dewatering Operations <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dewatering currently active?		Dewatering conforms with RWQCB permit?		Dewatering discharge within discharge specified limitations?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

Temporary Stream Crossing <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Constructed as shown on the plan?		Conforms to 404 permit and 1601 agreement requirements?		Maintenance or repair required?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No			
Location 1									
Location 2									
Location 3									

Material Storage <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Located away from drainage courses and water courses?		Areas protected from run on and runoff?		Bagged and boxed materials stored on pallets?		Areas reasonably clean and free of spills, leaks, and other material?		Is material inventory up to date?		Liquid materials in secondary containment?		Photos?
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Location 1													
Location 2													
Location 3													

	Comments and Required Actions												Action No.
Location 1													
Location 2													
Location 3													

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

<b>Waste Management Sanitation Facilities</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Located away from drainage courses and water courses?		Secured to ground or foundation?		Clean and has adequate capacity?		Ground checked for any spills or leaks?		Any spills or leaks found?		Photos?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Location 1												
Location 2												
Location 3												

Location Number	Comments / Corrective Actions	Action No.
1		
2		
3		

<b>Project-specific BMP</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Properly located?		Properly installed?		Maintenance or repair needed?		Photos?	Comments and Required Actions	Action No.
	Yes	No	Yes	No	Yes	No	Yes		
Location 1									
Location 2									
Location 3									

<b>Project-specific BMP</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Properly located?		Properly installed?		Maintenance or repair needed?						Photos?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	
Location 1												
Location 2												
Location 3												

Location Number	Comments and Required Actions	Action No.
Location 1		
Location 2		
Location 3		

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Site Inspection Report General Comments**

Are the BMPs installed as required by the Stormwater Pollution Prevention Plan for the phase of construction?

Yes     No

Does the SWPPP need to be amended?

Yes     No

Does the SWPPP currently reflect the current site conditions and contractor operations?

Yes     No

Is hazardous waste stored on the jobsite?

Yes     No

Are there water pollution control concerns on the project site not addressed by the comments and required actions shown above for BMPs, based on the field review of the jobsite?

Yes     No    *If yes, provide details, comments, and required actions below for each location.*

Location	Water Pollution Control Concern	Comments and Required Actions	Action No.

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Stormwater Inspection Report Certification**

I certify under penalty of law that this Stormwater Inspection Report was performed in accordance with the General Permit. The information contained in this inspection report was gathered from a field site inspection. I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting a false material statement, representation, or certification.

Stormwater Inspector (Name)	Date Report Completed
-----------------------------	-----------------------

Stormwater Inspector (Signature)

I certify under penalty of law that this Stormwater Inspection Report was performed in accordance with the General Permit by me or under my direction or supervision. The information contained in this inspection report was gathered and evaluated by qualified personnel prior to submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting a false material statement, representation, or certification.

Water Pollution Control Manager (Name)	Date
--	------

Water Pollution Control Manager (Signature)

**Stormwater Inspection Report Acceptance**

If hazardous waste is stored on the jobsite, the resident engineer should notify the district hazardous waste coordinator.

Was the District Hazardous Waste Coordinator notified?

- N/A, no hazardous waste stored on the jobsite
- YES, Date \_\_\_\_\_ Time \_\_\_\_\_
- NO

Accepted by Resident Engineer (Print Name)	Date
--	------

Resident Engineer (Signature)

---

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### Instructions

#### General Information

- Construction General Permit attachments C, D, and E, Section G.5. require the information on this form.
- If the inspection form does not contain enough lines to report all locations on a jobsite, click on the "Add Item" button so that all locations are inspected and reported.
- Obtain forecasted precipitation information from the National Weather Service Forecast Office website, <https://www.weather.gov/forecastmaps>.
- Weather information should be the best estimate of the beginning of the storm event, duration of the event, and time elapsed since the last storm.
- Rainfall amounts should be recorded from the project site rain gauge.
- "Daily Site Inspection of Best Management Practices" section is to be filled out by the water pollution control manager.

#### Storm Visual Inspections

- For non-visible pollutant inspections, report on all locations shown in the Stormwater Pollution Prevention Plan.

#### Required Actions

- All corrective actions identified in this report must also be recorded on Form CEM-2035, "Stormwater Corrective Actions Summary."
  - Locations identified where BMPs are failing or have other shortcomings require implementation of repairs or design changes within 72 hours of identification, and BMP repairs or other changes must be completed as soon as possible.
- 
-



# APPENDIX H

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CEM-2034 MONTHLY STORMWATER BEST MANAGEMENT & MATERIALS INVENTORY  
REPORT FORM



**MONTHLY STORMWATER BEST MANAGEMENT PRACTICES & MATERIALS  
INVENTORY REPORT - OPTIONAL**

CEM-2034 (NEW 12/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Stormwater Best Management Practices and Materials on Site**

	Location where stored:	BMP ID	Quantity on hand	Unit	Estimated quantity needed if rain event predicted, spill occurs or BMP fails
2	_____				
	BMP Name				
3	_____				
	BMP Name				



# MONTHLY STORMWATER BEST MANAGEMENT PRACTICES & MATERIALS INVENTORY REPORT - OPTIONAL

CEM-2034 (NEW 12/2013)

Page 4 of 4

## Instructions

### General Information

- The Water Pollution Control Manager must oversee preparation of this form and submit a copy to the resident engineer every month.
- Attach additional copies of page 2 and page 3 of this form to include all required locations.
- Insert consecutive numbers for each location when using page 2 or page 3 of this form

BMP Name	BMP ID	BMP Name	BMP ID
<b>Temporary Soil Stabilization</b>		<b>Non-Stormwater Management</b>	
Preservation of existing vegetation	SS-02	Water conservation practices	NS-01
Hydraulic mulch	SS-03	Dewatering operations	NS-02
Hydroseeding	SS-04	Paving and grinding operations	NS-03
Soil binders	SS-05	Temporary stream crossing	NS-04
Straw mulch	SS-06	Clear water diversion	NS-05
Geotextiles, mats, plastic covers, and lined ditches	SS-07	Illegal connection or discharge detection and reporting	NS-06
Wood mulching	SS-08	Potable water and irrigation	NS-07
Earth dikes, drainage swales and lined ditches	SS-09	Vehicle and equipment cleaning	NS-08
Outlet protection and velocity dissipation devices	SS-10	Vehicle and equipment fueling	NS-09
Slope drains	SS-11	Vehicle and equipment maintenance	NS-10
Streambank stabilization	SS-12	Pile-driving operations	NS-11
<b>Temporary Sediment Control</b>		Concrete curing	NS-12
Silt fence	SC-01	Material and equipment use over water	NS-13
Sediment or distilling basin	SC-02	Concrete finishing	NS-14
Sediment trap	SC-03	Structure demolition or removal over or adjacent to water	NS-15
Checkdams	SC-04	<b>Waste Management and Pollution Control</b>	
Fiber rolls	SC-05	Material delivery and storage	WM-01
Gravel bag berm	SC-06	Material use	WM-02
Sandbag barrier	SC-08	Stockpile management	WM-03
Straw bale barrier	SC-09	Spill prevention and control	WM-04
Storm drain inlet protection	SC-10	Solid waste management	WM-05
<b>Wind Erosion Control</b>		Hazardous waste management	WM-06
Wind erosion control	WE-01	Contaminated soil management	WM-07
<b>Tracking Controls</b>		Concrete waste management	WM-08
Stabilized construction entrance and exit	TC-01	Sanitary or septic waste management	WM-09
Stabilized construction roadway	TC-02	Liquid waste management	WM-10
Entrance and exit tire wash	TC-03		
Street sweeping	TC-04		

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# APPENDIX I

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CEM-2035 STORMWATER CORRECTIVE ACTIONS SUMMARY

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFICATION NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	SWPPP PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No.CAG61002 <input type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	Date

Implement required actions identified in this Stormwater Corrective Actions Summary as soon as possible, but actions must begin within 72 hours of the site inspection, or be completed before the next predicted rain event, whichever is sooner.

Corrective Action Number	Verification of Stormwater Site Inspection Corrective Action	Date Corrective Actions Identified
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	
	BMP Type	Location
	Required Action	Verified by (print name and title)
	Date Completed	Verified by (signature)
	Comments	

Add Page

Delete Page

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFICATION NUMBER
	WDID NUMBER

**Stormwater Site Inspection Report Corrective Action Summary Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the people who manage the system or are directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Water Pollution Control Manager (name)	Date
--	------

Water Pollution Control Manager (signature)

**Stormwater Site Inspection Report Corrective Action Summary Acceptance**

Resident Engineer (name)	Date
--------------------------	------

Resident Engineer (signature)

**Instructions**

**General Information**

- If the summary form does not have enough lines to report all required actions, use additional copies of this form's page 1 to report all required corrective actions from an Inspection form.
- On page 1 of this form and additional copies of page 1, insert consecutive numbers for each required corrective action.

**Required Actions**

- Identified locations - where BMPs are failing or have other shortcomings - required repairs or design changes within 72 hours of identification and complete BMP repairs or other changes as soon as possible, or before the next predicted rain event, whichever is sooner, per the Lake Tahoe Hydrologic Unit Permit.
- Daily inspection required for waste containers (covered at end of shift), tracking, and other per project specifications.



# APPENDIX J

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CEM-2045 RAIN EVENT ACTION PLAN FORMS

**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM	
	PROJECT IDENTIFIER NUMBER	
	WDID NUMBER	
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL	
	<input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3	
Submitted by contractor (print and sign name)	Date	
Water Pollution Control Manager name and company name	Phone number	
	Emergency (24/7) phone number	
Erosion and sediment control provider or subcontractor name and company	Phone number	
	Emergency (24/7) phone number	
Stormwater sampling and testing agent or subcontractor name and company	Phone number	
	Emergency (24/7) phone number	

**Storm Information**

Attach forecasted precipitation information from the National Weather Service Forecast Office website, <http://www.weather.gov>

Project site ZIP code	Date forecast checked	Time forecast checked
Forecast percentage probability of precipitation in 0 - 24 hours	Expected precipitation amount	Date
Forecast percentage probability of precipitation in 24 - 48 hours	Expected precipitation amount	Date
Forecast percentage probability of precipitation in 48 - 72 hours	Expected precipitation amount	Date
Will predicted weather pattern rain event produce 1/2-inch or more rain?  <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>Note:</b> A qualifying rain event happens when a predicted weather pattern will produce 1/2-inch or more of precipitation. A qualifying rain event will require stormwater visual monitoring site inspections and sampling and analysis of stormwater discharges.	

**Phase Information**

Highway Construction Phase       Plant Establishment Phase       Inactive

**Sampling Schedule**

Based on the weather forecast, stormwater discharge sampling is required to begin on \_\_\_\_\_ (date) at approximately \_\_\_\_\_ (time).  
Stormwater discharge sampling is required every 24 hours during an extended storm event based on the predicted duration of the storm event.  
It is required on the following date:

\_\_\_\_\_

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**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Activities Associated with Highway Construction Projects, Plant Establishment, Inactive Projects**

*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Cleaning and grubbing <input type="checkbox"/> Earthwork <input type="checkbox"/> Culvert construction <input type="checkbox"/> Rough grading <input type="checkbox"/> Storm drain installation <input type="checkbox"/> Utility installation water-gas-sewer <input type="checkbox"/> Structure foundations (including piles) <input type="checkbox"/> Subgrade grading <input type="checkbox"/> Subbase and base placement	<input type="checkbox"/> Finish grading <input type="checkbox"/> Structure construction <input type="checkbox"/> Soundwall construction <input type="checkbox"/> Curbs, gutters, and sidewalks <input type="checkbox"/> Paving operations <input type="checkbox"/> Finishing roadway <input type="checkbox"/> Metal beam guard rail installation <input type="checkbox"/> Sign installation <input type="checkbox"/> Highway electrical work	<input type="checkbox"/> Traffic striping and pavement markings <input type="checkbox"/> Highway planting <input type="checkbox"/> Soil amendments <input type="checkbox"/> Plant establishment <input type="checkbox"/> Material delivery and storage <input type="checkbox"/> Equipment maintenance and fueling <input type="checkbox"/> Erosion and sediment control <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
---	--	---

**Subcontractors or Trades Active on Site for Highway Construction, Plant Establishment, Inactive Projects**

*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Grading (operating engineers) <input type="checkbox"/> Underground storm drain (operating engineers and laborers) <input type="checkbox"/> Underground utilities (operating engineers and laborers) <input type="checkbox"/> Underground utilities (public or private utility company) <input type="checkbox"/> Pile installation (pile butts) <input type="checkbox"/> Concrete foundations (carpenters, laborers, and concrete finishers) <input type="checkbox"/> Bar reinforcement placement <input type="checkbox"/> Structure construction (carpenters and laborers) <input type="checkbox"/> Concrete placement (operating engineer, laborers and concrete finishers) <input type="checkbox"/> Hot mix asphalt placement (operating engineers and laborers)	<input type="checkbox"/> Curb, gutter and sidewalk (carpenters, laborers and concrete finishers) <input type="checkbox"/> Lighting and signals (operating engineers and electricians) <input type="checkbox"/> Metal beam guard rail (operating engineers and laborers) <input type="checkbox"/> Signs (operating engineers) <input type="checkbox"/> Traffic striping and pavement markings <input type="checkbox"/> Masonry soundwalls (masons and laborers) <input type="checkbox"/> Erosion and sediment control <input type="checkbox"/> Highway planting <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
--	---

**Trade (Subcontractor) Information Provided**

*Check ALL boxes below that apply to current project site.*

<input type="checkbox"/> Project SWPPP Handout <input type="checkbox"/> Contract Specifications <input type="checkbox"/> Educational Material Handout <input type="checkbox"/> SWPPP Training Workshop	<input type="checkbox"/> Tailgate Meetings <input type="checkbox"/> Poster and Signage <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
---	---

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**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Predicted Rain-Event-Triggered Actions**

Activity	Actions Required Before Predicted Rain Event
Information and Scheduling	<input type="checkbox"/> Project superintendent informed of predicted rain at _____ (time) on _____ (date). <input type="checkbox"/> Foreman and subcontractors informed of predicted rain. <input type="checkbox"/> Erosion control or sediment control provider notified to provide: <input type="checkbox"/> Pre-storm crew with at least _____ people <input type="checkbox"/> Pre-storm crew to start implementing storm event actions by _____ (time) on _____ (date)  <input type="checkbox"/> Sample collection and testing provider alerted if non-visible pollutant sampling and testing required. List of non-visible pollutant sampling locations and parameters: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____  <input type="checkbox"/> Check that adequate erosion and sediment control materials are on hand for: <input type="checkbox"/> Pre-storm required actions <input type="checkbox"/> Extended storm event maintenance and repair  <input type="checkbox"/> Confirm that the BMP site map is updated and provide a copy to erosion and sediment control provider or subcontractor.  <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
	<b>Additional Actions Required Before a Qualifying Rain Event</b>
	<input type="checkbox"/> Pre-storm stormwater site inspection completed. <input type="checkbox"/> Listed corrective actions identified by pre-storm stormwater site inspection that must be corrected before storm event on page 7 of this Rain Event Action Plan (REAP). <input type="checkbox"/> Staff scheduled for inspections during storm. <input type="checkbox"/> Erosion control or sediment control provider notified at _____ (time) on _____ (date) to provide crew during the storm event of at least _____. <input type="checkbox"/> The attached contingency plan is to be implemented in the event of flooding:

**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 01/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Predicted Rain-Event-Triggered Actions, (continued)**

Activity	Construction Site Monitoring Program Actions Required Before a Qualifying Rain Event
Information and Scheduling	<input type="checkbox"/> Review the discharge location site map for the current phase of the project and include additional non-visible pollutant sampling locations identified during pre-storm stormwater site inspection.  <input type="checkbox"/> Alert sample collection and testing provider that sampling will be required and provide the following: <ul style="list-style-type: none"> <li><input type="checkbox"/> Updated discharge location site map</li> <li><input type="checkbox"/> The required number of sampling locations for this phase of the project:                         <ul style="list-style-type: none"> <li><input type="checkbox"/> _____ Discharge points</li> <li><input type="checkbox"/> _____ Run-on locations</li> <li><input type="checkbox"/> _____ Receiving waters for Risk Level 3</li> <li><input type="checkbox"/> _____ Non-visible potential discharge points</li> </ul> </li> </ul> <p>Run-on Sampling Locations</p> <ol style="list-style-type: none"> <li>1. _____</li> <li>2. _____</li> <li>3. _____</li> <li>4. _____</li> <li>5. _____</li> </ol> <p>Receiving Water Sampling Locations</p> <ol style="list-style-type: none"> <li>1. _____</li> <li>2. _____</li> <li>3. _____</li> <li>4. _____</li> <li>5. _____</li> </ol> <p>Discharge Sampling Locations</p> <ol style="list-style-type: none"> <li>1. _____</li> <li>2. _____</li> <li>3. _____</li> <li>4. _____</li> <li>5. _____</li> </ol>

**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Predicted Rain-Event-Triggered Actions (continued)**

Activity	Actions Required Before Predicted Rain Event
Material Storage Areas	<input type="checkbox"/> Material covered or in sheds (For example: treated wood and metals) <input type="checkbox"/> Stockpiles covered and perimeter control installed <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Waste Management Areas	<input type="checkbox"/> Dumpsters closed <input type="checkbox"/> Drain holes plugged <input type="checkbox"/> Recycling bins covered <input type="checkbox"/> Sanitary stations bermed and protected from tipping <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Concrete Rinse Out Areas	<input type="checkbox"/> Wash-out bins covered <input type="checkbox"/> Adequate capacity for rain <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____
Operations	<input type="checkbox"/> Operations to shut down for rain event <ul style="list-style-type: none"> <li><input type="checkbox"/> Grading</li> <li><input type="checkbox"/> Concrete pours</li> <li><input type="checkbox"/> Hot mix asphalt paving</li> <li><input type="checkbox"/> Other _____</li> <li><input type="checkbox"/> Other _____</li> </ul> <input type="checkbox"/> Soil amendments not to be applied within the 24 hours before a rain event <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____

**RAIN EVENT ACTION PLAN**

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Predicted Rain-Event-Triggered Actions (continued)**

Activity	Actions Required Before Predicted Rain Event																				
Secure Site for Storm Event	<input type="checkbox"/> Trenches and excavation protected. <input type="checkbox"/> Perimeter and excavations protected. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																				
Site Erosion and Sediment Control BMPs	<input type="checkbox"/> Site perimeter controls are in place. <input type="checkbox"/> Catch basin and drop inlet protection are in place. <input type="checkbox"/> Sediment basins and traps have adequate capacity. <input type="checkbox"/> Deploy temporary perimeter control on inactive areas. <input type="checkbox"/> Deploy temporary perimeter control around active disturbed soil areas and active stockpiles. <input type="checkbox"/> Sweep access roads. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																				
Spills and Drips	<input type="checkbox"/> Clean up all spills and drips, including paint, fuel, and oil. <input type="checkbox"/> Empty drip pans. <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____																				
Pre-storm Inspection Identified Corrective Actions	<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:80%;"></th> <th style="width:20%; text-align: center;">Corrective Action Number</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> <tr><td><input type="checkbox"/> _____</td><td style="text-align: center;">_____</td></tr> </tbody> </table>		Corrective Action Number	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____	<input type="checkbox"/> _____	_____
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**RAIN EVENT ACTION PLAN**

CEM-2045 (REV 02/2019)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Certification of Rain Event Action Plan**

I certify under penalty of law that this Rain Event Action Plan (REAP) will be implemented in accordance with the Construction General Permit by me or under my direction or supervision. The information contained in this REAP was gathered and evaluated by qualified personnel before submittal. Based on my review of the information and inquiry of those who gathered and evaluated the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that Section 309 (c)(4) of the Clean Water Act provides for significant penalties, including fines and imprisonment for knowingly submitting false material statement, representation or certification.

Water Pollution Control Manager name	Date
Water Pollution Control Manager signature	
Accepted by resident engineer name	Date
Resident engineer signature	



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**Instruction****General Information**

- This form must be completed for Risk Level 2 and Risk Level 3 projects with the chance for precipitation of 50 percent or greater, within 72 hours of the forecast date. The Rain Event Action Plan (REAP) must be developed 48 hours prior to any likely precipitation rain event (any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the project area).
- The CGP requires a pre-storm inspection within two business days (48 hours) prior to a "qualifying rain event" which is defined as any event producing precipitation of 0.5 inch or more over the duration of the rain event. Because the size of a rain event cannot be accurately predicted, Caltrans requires a pre-storm inspection based on a forecasted storm event, which is defined as any rain event that is forecasted to produce 0.1 inch or more of precipitation within any 24-hour period. The trigger for a pre-storm event visual inspection is the same as for a REAP: 50 percent or greater probability of producing 0.1 inch or more of precipitation within any 24-hour period in the project area based on the National Weather Service Forecast Office (National Oceanic and Atmospheric Administration).
- Within 24 hours prior to a storm event, the REAP must be submitted to the resident engineer. The REAP must be made available on site and implementation begun no later than 24 hours prior to the likely precipitation event.
- File this form in SWPPP File Category 20.45.

**Form**

- **Contract Number/Co/Rte/PM**  
For encroachment permit projects, write the local agency or private entity encroachment permit number in the contract number field.
- **Project Identifier Number**  
For projects without a number, write N/A in the field.

# APPENDIX K

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CEM-2061 NOTICE OF DISCHARGE FORM

**NOTICE OF DISCHARGE REPORT**

CEM-2061 (REV 01/2018)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	WDID NUMBER
	DISCHARGE REPORT NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3 <input type="checkbox"/> N/A. WPCP
Submitted by contractor (print and sign name)	Date

**A. Discharge Information**

Discharge Location	Discharge Type <input type="checkbox"/> Stormwater <input type="checkbox"/> Authorized non-stormwater <input type="checkbox"/> Non-authorized non-stormwater <input type="checkbox"/> Other
Discharge samples taken? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, complete Section E	Discharge identified by Name: _____ Title: _____ Date/Time: _____

Date and time water pollution control manager notified of discharge:

Date and time resident engineer or district construction stormwater coordinator notified of discharge:

**B. Discharge Information**

Describe the discharge, based on a visual observation; estimate discharge quantities:	Photographs <input type="checkbox"/> YES <input type="checkbox"/> NO
Describe the source and the operation that cause the discharge:	<input type="checkbox"/> YES <input type="checkbox"/> NO

Describe existing BMPs at the discharge location:

**C. Field Response**

Was the discharge eliminated?    YES    NO

Describe changes in operation and BMPs implemented to eliminate the discharge and control the source:

Corrective action plan and implementation schedule:

**NOTICE OF DISCHARGE REPORT**

CEM-2061 (REV 01/2018)

DISCHARGE REPORT NUMBER

**D. Assessment of Discharge**

Discussion of the discharge event: how, why, whether the discharge was preventable, etc., who participated (required: WPC Manager, RE, contractor's field superintendent)?

Future corrective actions to minimize or eliminate (provide a schedule and list responsible parties):

Were quantities estimated in Section B corrected by field measurements?

**E. Sampling and Analysis Results**

Required when discharge samples are taken. Attach CEM-2052 or lab results report.

- Are discharge samples taken?  YES  NO
- Is lab results report attached?  YES  NO  RESULTS PENDING
- If applicable, provide lab information: lab name, contract name, date samples sent, attach a copy of chain of custody, etc.
- Is CEM-2052 attached?  YES  NO  N/A

**F. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Water Pollution Control Manager (name)

WPC Manager Phone Number

Water Pollution Control Manager (signature)

Date

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**NOTICE OF DISCHARGE REPORT**

CEM-2061 (REV 01/2018)

DISCHARGE REPORT NUMBER

**For Caltrans Use**

Accepted by Resident Engineer (name)		Date
Resident Engineer (signature)		
Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB)?	Date discharge reported to RWQCB	Reported by
A. Immediately and no later than 2 hours after discovery (sewage discharging)? <input type="checkbox"/> YES <input type="checkbox"/> NO		
B. Within 24 hours (project specific)? <input type="checkbox"/> YES <input type="checkbox"/> NO		
C. As soon as possible but within 48 hours? <input type="checkbox"/> YES <input type="checkbox"/> NO		
Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)?	Date report submitted to RWQCB	Resident Engineer or DCSWC initials
A. Within 24 hours (sewage discharge)? <input type="checkbox"/> YES <input type="checkbox"/> NO		
B. Within 14 days? <input type="checkbox"/> YES <input type="checkbox"/> NO		
C. Within _____ days (project specific)? <input type="checkbox"/> YES <input type="checkbox"/> NO		

**Instructions****GENERAL INFORMATION**

- This form is required for compliance with provisions in Section E.2.c, "Monitoring and Discharge Characterization Requirements," of the National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation, Order No. 2012-0011-DWQ, NPDES No. CAS000003.
- This form is to be completed when the contractor, Caltrans, State Water Resources Control Board, or Regional Water Quality Control Board staff determines that stormwater discharges, authorized non-stormwater discharges, or non-authorized, non-stormwater discharges are causing or contributing to an exceedance of an applicable water quality standard.
- This form is appropriate when there is evidence of a discharge that occurred outside of business hours where no sampling occurred.
- This form is appropriate when there is a discharge of AC grindings; concrete debris, rubble, or fines; dry materials; construction wastes; or, contaminated soils or sediment.
- When a discharge occurs, Section C is used to describe the maintenance or repair of BMPs that were done and Section D is used to describe BMPs that will be implemented in the future.
- Water quality standards are contained in the Statewide Water Quality Control Plan or applicable Regional Water Quality Control Boards (RWQCBs) Basin Plan.
- Sampling guidance is found in the current edition of the *Construction Site Monitoring Program Guidance Manual*.
- If sampling is done, effluent samples must be collected.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPPP) files.

**FORM**

- **Contract Number/Co/Rte/PM**  
For encroachment permit projects, write the local agency or private entity encroachment permit number in the contract number field.
- **Discharge Information**  
Do not leave any subsection blank. Caltrans permit specifically requires Caltrans to submit the information in this section to RWQCBs. For non-stormwater discharges, describe the construction operation or activity that caused the discharge.
- **Field Response**  
Corrective action plan must include a description of maintenance or repair for existing BMPs and an implementation schedule for future BMP changes or implementation.
- **Sampling and Analysis Results**  
Leave this section blank if the no box is checked for discharge samples taken.
- **Notice of Discharge Report Certification**  
For instruction on reporting timelines, see Section 9.4, Noncompliance Reporting, of Statewide Stormwater Management Plan, May 2003.

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# APPENDIX L

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CEM-2058 STORMWATER METER CALIBRATION RECORD – SPECIALTY METERS FORM

# STORMWATER METER CALIBRATION RECORD - SPECIALTY METERS

CEM-2058 (REV 12/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

**Meter**

Multi-meter:     YES     NO

Meter Manufacturer	Meter Model Number	Meter Serial Number
--------------------	--------------------	---------------------

**Conductivity Meter Calibration Date** \_\_\_\_\_

Standard Solution (uS/cm)	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

Meter Manufacturer	Meter Model Number	Meter Serial Number
--------------------	--------------------	---------------------

**Dissolved Oxygen Meter Calibration Date** \_\_\_\_\_

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

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**STORMWATER METER CALIBRATION RECORD - SPECIALTY METERS**

CEM-2058 (REV 12/2013)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
Meter Manufacturer	Meter Model Number
	Meter Serial Number

**Meter Calibration Date**

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

Meter Manufacturer	Meter Model Number	Meter Serial Number
--------------------	--------------------	---------------------

**Meter Calibration Date**

Standard	Cal Standard Solution Expiration Date	Initial Calibration		Re-Calibration		Drift Check		Notes	Initials
		Time		Time		Time			
		Cal	Read	Cal	Read	Read	Acceptable Performance		

Date	Notes

**Review**

I have reviewed this document and, based on my inquiry of the person or persons who manage the system of those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete.

Water Pollution Control Manager	Date
---------------------------------	------

Water Pollution Control Manager Signature



## STORMWATER METER CALIBRATION RECORD - SPECIALTY METERS

CEM-2058 (REV 12/2013)

Page 3 of 3

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### Instructions

#### General Information

- Projects with a Construction Site Monitoring Program require the information on this form as part of the Stormwater Pollution Prevention Plan for specialty stormwater analysis meter calibration if a specialty meter was used. This form is not intended to be used with a turbidity or pH meter.
- Completed forms shall be filed in project file category 20.55, Field Testing Equipment Maintenance and Calibration Records.

#### Form

##### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

##### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write "N/A" in the field.

Acceptable performance for conductivity drift is  $\pm 10$  percent, and acceptable performance for dissolved oxygen is  $\pm 10$  percent.

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# APPENDIX M

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CEM-2051 STORMWATER SAMPLING AND TESTING ACTIVITY LOG – OPTIONAL FORM

**STORMWATER SAMPLING AND ANALYSIS LOG - OPTIONAL**

CEM-2051 (REV 1/2014)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM  PROJECT IDENTIFIER NUMBER  WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

**STORMWATER SAMPLING AND ANALYSIS LOG REVIEW**

I have reviewed this document and based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete.

Are laboratory test results attached to this stormwater sampling and analysis log submittal?

YES     NO

Water Pollution Control Manager Signature	Date
---	------

# STORMWATER SAMPLING AND ANALYSIS LOG - OPTIONAL

CEM-2051 (REV 1/2014)

CONTRACT NUMBER/CO/RTE/PM	PROJECT IDENTIFIER NUMBER	WDID NUMBER	DATE
---------------------------	---------------------------	-------------	------

## STORMWATER SAMPLING AND ANALYSIS LOG

Log Number	Date of Sampling	Sampling Location	Time Sample Taken	Amount of Precipitation	Sample Identification	Analysis	Analysis Result	Daily Average Analysis Result	Lab Report Attached
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Turbidity <input type="checkbox"/> pH <input type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No

## STORMWATER SAMPLING AND ANALYSIS LOG - OPTIONAL

CEM-2051 (REV 1/2014)

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### Instructions

#### General Information

- The information shown on this form is required for projects with a Stormwater Pollution Prevention Plan (SWPPP) to document stormwater sampling and analysis. The information on this form is required for the stormwater annual report for SWPPP projects.
- Complete this form after every storm event that requires sampling and analysis.
- Complete this form weekly for logging non-stormwater sampling and analysis, and indicate in the sampling location column the reason for non-stormwater samples, such as sample from dewatering operation.
- This form is provided as an optional management tool, to be used at the discretion of the water pollution control manager.

#### Form

##### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

##### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.

##### Log No.

Log numbering should be consecutive starting from the first storm event to the last storm event for a project.

##### Amount of Precipitation

Enter the cumulative amount of precipitation from the storm event at the time each sample is taken.

##### Analysis Result

For turbidity and pH, a minimum of three samples is required to determine the daily average. If more than three daily samples are taken, use two rows to report all samples, and report the daily average in the second row.

# APPENDIX N

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CEM-2052 STORMWATER SAMPLE FIELD TEST REPORT FORM

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**STORMWATER SAMPLE FIELD TEST REPORT/  
 RECEIVING WATER MONITORING REPORT**  
 CEM-2052 (REV 7/2014)

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A. WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> N/A. Project resides in the Lake Tahoe Hydrologic Unit and is regulated under Order No. R6T-2011-0019, NPDES No. CAG616002. <input type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	Date

**Stormwater Samples Analysis**

Date of sampling	
Sample location identification number	Date of Analysis
Sample Analyzed By (signature)	Samples to be analyzed for parameters
Sampled Analyzed By (print name)	<input type="checkbox"/> Turbidity
Analyzer Phone Number (    )	<input type="checkbox"/> pH
Company	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Other _____

**Turbidity Analysis Information**

Meter Manufacturer	Model Number	Serial Number	Calibration Date
Analytical Method	Method Reporting Unit	Method Detection Limit	

**pH Analysis Information**

pH Meter Manufacturer	Model Number	Serial Number	Calibration Date
Analytical Method	Method Reporting Unit	Method Detection Limit	





STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**STORMWATER SAMPLE FIELD TEST REPORT/  
 RECEIVING WATER MONITORING REPORT**  
 CEM-2052 (REV 7/2014)

**Receiving Water Sample Analysis Results**

Sample Identification	Exception See Instructions	pH	NTU	SSC	Parameter Analysis *		
					Time Sample Collected	Time Sample Read	Sample Value and Units
Qualifying Rain Event Daily Average Analysis Result							

**Review and Record Keeping**

Test results entered into sampling and testing activity log?  <input type="checkbox"/> Yes <input type="checkbox"/> No	Numeric action level exceedance?  <input type="checkbox"/> Yes <input type="checkbox"/> No	Receiving water monitoring triggers exceeded?  <input type="checkbox"/> Yes <input type="checkbox"/> No	ATS NEL exceeded?  <input type="checkbox"/> Yes <input type="checkbox"/> No
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\* Complete and attach CEM-2058 to document calibration of instruments used to analyze these parameters.

## Instructions

### General Information

- This form is required for compliance with provisions in Section I of Attachments C, D, and E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002 and provisions of General Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Lake Tahoe Hydrologic Unit Order No. R6T-2011-0019 NPDES No. CAG616002.
- The Caltrans, *Construction Site Monitoring Program Guidance Manual*, latest edition, contains sampling guidance.
- Complete form CEM-2058 if other parameters are tested.
- Sampling and sample preservation must be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).
- Collect, maintain, and ship samples according to the State Water Resources Control Board's (SWRCB), Surface Water Ambient Monitoring Program's (SWAMP) Quality Assurance Program Plan (QAPrP), latest edition.
- Complete a separate stormwater sample field analysis report daily for each sampling location.
- Include a copy of the completed form in the project Stormwater Pollution Prevention Plan files.

### Form

#### Contract Number/Co/Rte/PM

For local agency encroachment permit projects, write the encroachment permit number in the Contract Number field.

#### Analysis Result

Analytical results less than the method detection limit must be reported as "less than the method detection limit".

#### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, enter N/A in the field.

#### Qualifying Rain Event Daily Average Analysis Result

A minimum of three daily samples are required to calculate the daily average for a qualifying rain event.

#### Sample pH Analysis

Sample pH reading must be done within 15 minutes of sample collection.

#### Numeric Action Level Exceedance

In the event that any daily average effluent samples analysis results exceeds an applicable Numeric Action Level (NAL), complete form CEM-2062 "Numeric Action Level Exceedance Report," and submit all storm event sampling results to the State Water Resources Control Board (SWRCB) no later than ten days after the conclusion of the storm event.

#### Receiving Water Monitoring Trigger (RWMT) Exceedance

In the event that any daily average RWMT is exceeded, complete form CEM-2062, "Numeric Action Level Exceedance Report / Receiving Water Monitoring Trigger Report" and submit all storm event sampling results to the resident engineer within six hours.

#### Add Exceptions Reasons:

- N - No Run-off at time of inspection
- O - Outside of normal business hours
- U - Unsafe conditions/unsafe access

# APPENDIX O

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CEM-2062 NUMERIC ACTION LEVEL EXCEEDANCE REPORT FORM

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
Submitted by contractor (print and sign name)	Date

**Numeric Action Level Exceedance Information: Attach CEM-2052**

**Storm Event Information**

Start of storm event	End of storm event	Duration of storm event	Storm event precipitation amount recorded from site rain gauge	Storm event precipitation amount recorded from governmental rain gauge
_____ <i>Date</i>	_____ <i>Date</i>	_____ <i>Hours : Minutes</i>	_____ <i>inches</i>	_____ <i>inches</i>
_____ <i>Time</i>	_____ <i>Time</i>			

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PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Exceedance Location Information**

Photographs

Visual observation of location	<input type="checkbox"/> YES <input type="checkbox"/> NO
The nature and cause of the water quality standard exceedance, based on a visual observation of the discharge location	<input type="checkbox"/> YES <input type="checkbox"/> NO
BMPs currently installed at the location of the discharge	<input type="checkbox"/> YES <input type="checkbox"/> NO
Additional BMPs that will be implemented to prevent or reduce pollutants causing or contributing to exceedance of a water quality standard	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for additional BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Maintenance or repair of BMPs	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for BMPs maintenance or repair	<input type="checkbox"/> YES <input type="checkbox"/> NO
Other required corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO
Implementation schedule for corrective actions	<input type="checkbox"/> YES <input type="checkbox"/> NO

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Numeric Action Level Exceedance Report Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those person directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Water Pollution Control Manager name	Date
Water Pollution Control Manager signature	

**For Caltrans Use**

Resident engineer name	Date
Resident engineer signature	

Numeric Action Level Exceedance Report submitted to State Board SMARTS database within 24 hours after NAL exceedance was identified?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date input	Resident engineer initials
---	------------	----------------------------

All storm event sampling results submitted to State Water Board SMARTS database within 10 days after the conclusion of the storm event?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date input	Resident engineer initials
--	------------	----------------------------

**Notice of Discharge Reporting**

Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB) within 48 hours of discovery?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date discharge reported to RWQCB	Resident engineer initials
---	----------------------------------	----------------------------

Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date report submitted to RWQCB	Resident engineer initials
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## Instructions

### General Information

- This form is required for compliance with provisions for Numeric Action Level (NAL) Exceedance Report in Section I of Attachment D or E of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002.
- Sampling guidance is found in the Caltrans, *Construction Site Monitoring Program Guidance Manual*, latest edition.
- In the event that any daily average effluent sample analysis result exceeds an applicable NAL, submit all storm event sampling results to the State Regional Water Quality Control Board (RWQCB) no later than 10 days after the conclusion of the storm event.
- RWQCBs have the authority to require the submittal of an NAL Exceedance Report.
- You may submit an NAL Exceedance Report to RWQCB instead of a Notice of Discharge Report.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPP) files.

### Form

#### Contract Number/Co/Rte/PM

For local agency encroachment permit projects write the encroachment permit number in the Contract Number field.

#### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.

#### Storm Event Precipitation Amount at Sample Time

At time of sample collection, record amount of precipitation from onsite rain gauge.

#### Analysis Results

Analytical results that are less than the method detection limit shall be reported as "Less than the method detection limit."

#### Qualifying Rain Event Daily Average Analysis Result

A minimum of three daily samples is required to calculate the daily average for a qualifying rain event.

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# APPENDIX P

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CEM-2063 NUMERIC EFFLUENT LIMITATION VIOLATION REPORT – ATS DISCHARGE  
FORM



**NUMERIC EFFLUENT LIMITATION VIOLATION REPORT - ATS DISCHARGES**

PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER
CONTRACTOR NAME AND ADDRESS	PROJECT SITE RISK LEVEL <input type="checkbox"/> Risk Level 1 <input type="checkbox"/> N/A: WPCP <input type="checkbox"/> Risk Level 2 <input type="checkbox"/> Risk Level 3
SUBMITTED BY CONTRACTOR (PRINT AND SIGN NAME)	DATE

**Numeric Effluent Limitation Violation Information**  
*Attach form CEM-2052 or lab results*

**Storm Event Information**  
*Attach a copy of the governmental rain gauge information.*

Start of storm event  _____ Date  _____ Time	End of storm event  _____ Date  _____ Time	Duration of storm event  _____ Hours : Minutes	Storm event precipitation amount recorded from site rain gauge  _____ inches	Storm event precipitation amount recorded from governmental rain gauge  _____ inches
Storm event 24-hour maximum precipitation amount recorded from onsite rain gauge  _____ inches	Storm event 24-hour maximum precipitation amount from governmental rain gauge  _____ inches	ATS Compliance storm (10-year, 24-hour storm)  _____ inches	ATS Compliance storm exception (10-year, 24-hour storm)  <input type="checkbox"/> Yes <input type="checkbox"/> No	

**Additional Information**

Run-on samples taken?  <input type="checkbox"/> Yes <input type="checkbox"/> No	Receiving water samples taken?  <input type="checkbox"/> Yes <input type="checkbox"/> No
Run-on sample identification	Receiving water sample identification

**NUMERIC EFFLUENT LIMITATION VIOLATION REPORT - ATS DISCHARGES**

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PROJECT INFORMATION NAME AND SITE ADDRESS	CONTRACT NUMBER/CO/RTE/PM
	PROJECT IDENTIFIER NUMBER
	WDID NUMBER

**Numeric Effluent Limitation Violation Report Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those person directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Water Pollution Control Manager Name	Date
Water Pollution Control Manager Signature	

**For Caltrans Use**

Resident engineer name	Date
Resident engineer signature	

Numeric Effluent Limitation Violation Report submitted to State Board SMARTS database within 24 hours after NEL exceedance was identified?  <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials
All storm event sampling results submitted to State Water Board SMARTS database within 5 days after the conclusion of the storm event?  <input type="checkbox"/> Yes <input type="checkbox"/> No	Date input	Resident engineer initials

**Notice of Discharge Reporting**

Discharge reported by telephone or email to the Regional Water Quality Control Board (RWQCB) within 48 hours of discovery?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date discharge reported to RWQCB	Resident engineer initials
Notice of Discharge Report submitted to RWQCB within 14 days (3 days for District 7 and District 11)?  <input type="checkbox"/> YES <input type="checkbox"/> NO	Date report submitted to RWQCB	Resident engineer initials

## NUMERIC EFFLUENT LIMITATION VIOLATION REPORT - ATS DISCHARGES

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### Instructions

#### General Information

- This form is required for compliance with provisions for Numeric Effluent Limitation (NEL) Violation Report in Attachment F of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-2006-DWQ NPDES No. CAS000002.
- Sampling guidance is found in the Caltrans, *Construction Site Monitoring Program Guidance Manual*, latest edition.
- When the daily average of effluent samples analysis results exceeds an applicable NEL, submit the NEL Violation Report to the State Water Resources Control Board (SWRCB), Storm Water Multi Application and Report Tracking System (SMARTS) within 24 hours after a NEL Exceedance has been identified.
- When the daily average of effluent samples analysis results exceeds an applicable NEL, submit all storm event sampling results to the SWRCB SMARTS within 5 days after the conclusion of the storm event.
- Regional Water Quality Control Boards have the authority to require the submittal of a NEL Violation Report.
- You may submit a NEL Violation Report to RWQCB instead of a Notice of Discharge Report.
- Include a copy of the completed form in the project Storm Water Pollution Prevention Plan (SWPPP) files.

#### Form

##### Contract Number/Co/Rte/PM

For local agency encroachment permit projects write the encroachment permit number in the Contract Number field.

##### Project Identifier Number

Caltrans projects starting July 1, 2010, will have a Project Identifier Number (PIN). For projects without a PIN, write N/A in the field.

##### Storm Event Precipitation Amount

Record amount of precipitation from onsite and government rain gauges.

##### Analysis Results

Analytical results that are less than the method detection limit shall be reported as "Less than the method detection limit."

##### Compliance Storm Event

The 10-year, 24-hour storm (expressed in tenths of an inch of rainfall), as determined by using the maps.

<http://www.wrcc.dri.edu/pcpnfreq/nca10y24.gif>

<http://www.wrcc.dri.edu/pcpnfreq/sca10y24.gif>

Compliance storm verification must be done by reporting the onsite rain gauge readings as well as nearby governmental rain gauge readings. Attach a copy of the governmental rain gauge readings to this report.

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