PROJECT REPORT

TO: PLANNING COMMISSION **AGENDA DATE: January 25, 2023**

FROM: PLANNING & DEVELOPMENT SERVICES AGENDA TIME 9:00 AM/ No. 8

Initial Study #22-0025

PROJECT TYPE: Forrester Rd. Bridge Replacement Project SUPERVISOR DIST # 3

LOCATION: 3712 Forrester Rd, APN: 040-170-010-000

Brawley, CA 92227 PARCEL SIZE: +/- 1 acre

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

ZONE (existing) A-2 (General Agriculture) ZONE (proposed) N/A

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

PLANNING COMMISSION DECISION: HEARING DATE:

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: ____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 07/28/2022

INITIAL STUDY: 22-0025

☐ NEGATIVE DECLARATION ☒ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

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

REQUESTED ACTION:

IS RECOMMENDED THAT YOU CONDUCT A PUBLIC HEARING AND THAT YOU HEAR ALL THE OPPONENTS AND PROPONENTS OF THE PROPOSED PROJECT. STAFF WOULD THEN RECOMMEND THAT YOU TAKE THE FOLLOWING ACTIONS:

1) **ADOPT THE MITIGATED NEGATIVE DECLARATION BY FINDING THAT THE PROPOSED PROJECT WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AS RECOMMENDED AT THE ENVIRONMENTAL EVALUATION COMMITTEE (EEC) HEARING HELD ON JULY 28,2022;**
2) **MAKE THE DE MINIMUS FINDINGS AS RECOMMENDED AT THE JULY 28,2022 EEC HEARING THAT THE PROJECT WILL NOT INDIVIDUALLY OR CUMMULATIVELY HAVE AN ADVERSE EFFECT ON FISH AND WILDLIFE RESOURCES, AS DEFINED IN SECTION 711.2 OF THE FISH AND GAME CODES; AND**
3) **ADOPT THE ATTACHED RESOLUTION(S) AND MITIGATED NEGATIVE DECLARATION FOR IS#22-0025.**

STAFF REPORT
PLANNING COMMISSION MEETING
January 25, 2023

Project Name: **Initial Study #22-0025**
Forrester Road Bridge Replacement

Applicant: **Imperial County Public Works**
155 South 11th Street,
El Centro, CA 92243

Project Location:

The proposed project site is located on Forrester Road in Imperial County, approximately 10 miles north of Interstate 8 (I-8) and 5 miles southwest of Brawley, California. The bridge is approximately 1,330 feet south of intersection of Forrester Road and Imler Road. (APN 040-170-010-000)

Project Summary:

The applicant is proposing to replace the existing Forrester Road Bridge (No. 58C-0014) with a new structure, which would span the Westside Main Canal and Sumac canal. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would include two 12-foot wide lanes, two 8-foot wide paved shoulders and a 55-mile per hour (mph) design speed. The proposed bridge would require raising the roadway's vertical alignment by approximately 3.5 feet to provide the required clearance between the Westside Main Canal and the bridge. The grade of the roadway approached that are approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway. The area surrounding the proposed project site consists mostly of undeveloped agricultural land.

Land Use Analysis:

The land use designation for the site is "Agriculture" under the Land Use Element of the General Plan and zone is "A-2" (General Agriculture) per Imperial County Land Use Ordinance (Title 9). The project is consistent with the General Plan and with the Imperial County Land Use Ordinance.

Surrounding Land Use Ordinance:

DIRECTION	CURRENT LAND USE	ZONING	GENERAL PLAN
Project Site	Existing Bridge No.58C-0014	A-2	Agriculture
North	Agriculture	A-2	Agriculture
South	Agriculture	A-2	Agriculture
East	Agriculture	A-2	Agriculture
West	Agriculture	A-2	Agriculture

Environmental Review:

The proposed project was assessed and reviewed by the Environmental Evaluation Committee (EEC). The Committee consists of a seven (7) member panel, integrated by the Director of Environmental Health Services, Imperial County Fire Chief, Agricultural Commissioner, Air Pollution Control Officer, Director of the Department of Public Works, Imperial County Sheriff, and the Director of Planning and Development Services. The EEC members have the principal responsibility for reviewing CEQA documents for the County of Imperial. On July 28, 2022, after review by the EEC members, the members recommended a Mitigated Negative Declaration.

The project publicly circulated from July 01, 2022 through July 17, 2022; comments were Received, reviewed and made part of this project. The Draft IS/MND circulated for a 40-day public review period that began on August 2, 2022 and ended on September 10, 2022; and recirculated on October 24, 2022.

Staff Recommendation:

Staff recommends that the Planning Commission hold a public hearing, hear all the proponents and opponents of the proposed project, and then take the following actions:

1. Adopt the Mitigated Negative Declaration by finding that the proposed project would not have a significant effect on the environment as recommended at the Environmental Evaluation Committee (EEC) hearing held on July 28, 2022;
2. Make the De Minimus Findings as recommended at the July 28, 2022 EEC Hearing, that the project will not individually or cumulatively have an adverse effect on Fish and Wildlife Resources, as defined in Section 711.2 of the Fish and Game Codes; and
3. Adopt the attached resolution(s) and Mitigated Negative Declaration for Initial Study #22-0025.

Prepared By: Cruz Guzman, Planner I
Planning & Development Services

Reviewed By: Michael Abraham, AICP, Assistant Director
Planning & Development Services

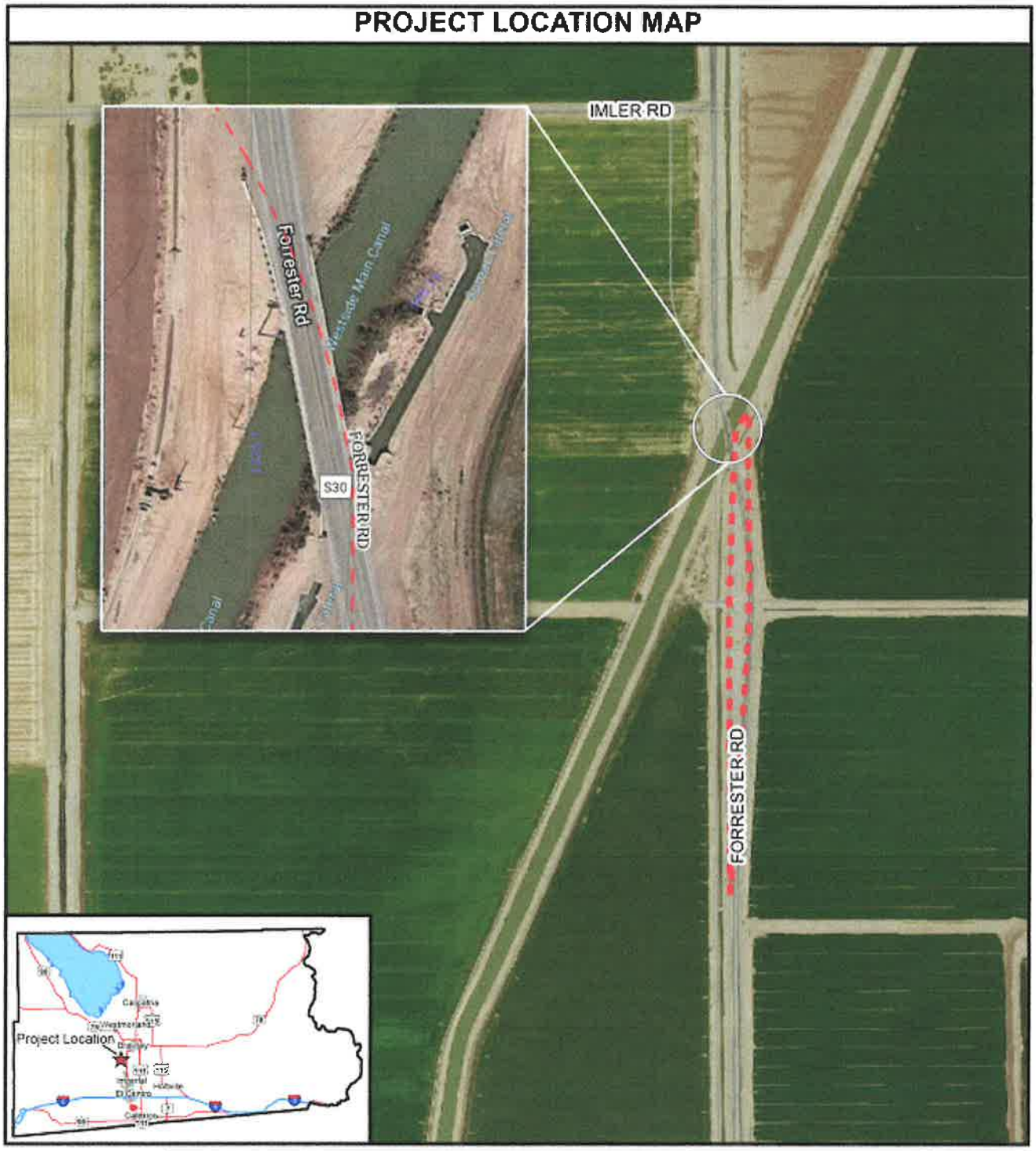
Approved By: Jim Minnick, Director
Planning & Development Services

Attachments:

A. Vicinity Map
B. Site Plan
C. CEQA Resolutions
D. Environmental Evaluation Committee package
E. Comment Letters

Attachment "A"
(Location Map)

PROJECT LOCATION MAP

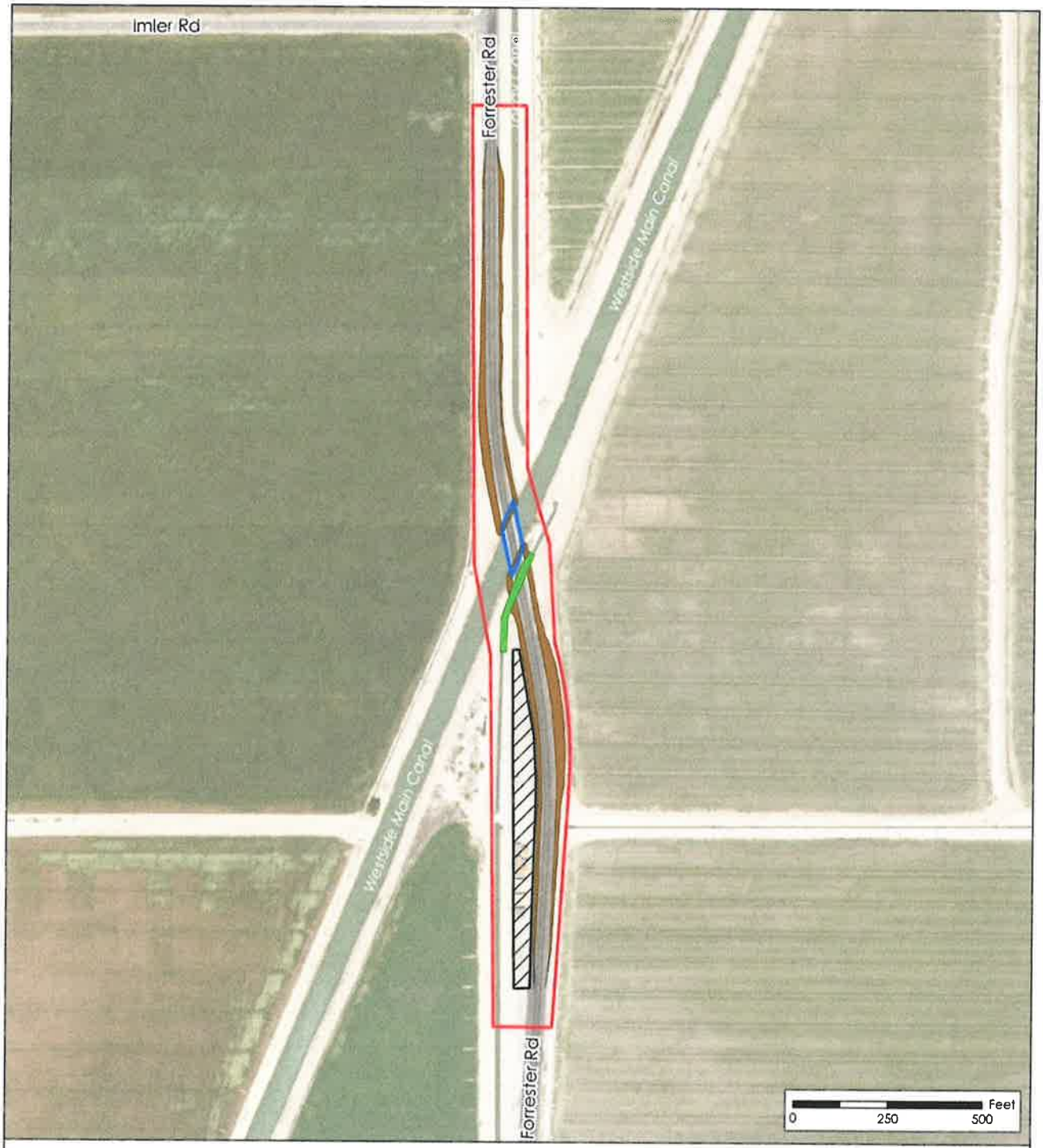


FORRESTER ROAD
OVER WESTSIDE CANAL
BRIDGE REPLACEMENT
INITIAL STUDY #22-0025
APN 040-170-010-000

Project Location
Centerline
Parcels

N

Attachment "B"
(Site Plan)



Legend

Scale = 1:5,000

- APE
- Proposed Bridge
- Staging Area
- Proposed Box Culvert
- Toe of Fill

PANORAMA

Attachment "C"
(CEQA Resolutions)

RESOLUTION NO._____

A RESOLUTION OF THE PLANNING COMMISSION FOR THE COUNTY OF IMPERIAL, CALIFORNIA, ADOPTING THE "MITIGATED NEGATIVE DECLARATION" FOR INITIAL STUDY (IS) #22-0025, IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT'S FORRESTER ROAD BRIDGE REPLACEMENT PROJECT

WHEREAS, on July 1, 2022 a Public Notice was mailed to the surrounding property owners advising them of the Environmental Evaluation Committee hearing scheduled for July 28, 2022; and,

WHEREAS, a Mitigated Negative Declaration and CEQA findings were prepared in accordance with the requirements of the California Environmental Quality Act, State Guidelines, and the County's "Rules and Regulations to Implement CEQA, as Amended"; and,

WHEREAS, the Environmental Evaluation Committee recommended to the Planning Commission of the County of Imperial to adopt the Mitigated Negative Declaration for IS #22-0025; and,

WHEREAS, the Mitigated Negative Declaration was circulated for 30+ days from August 2, 2022 to September 10, 2022, and recirculated for an additional 30+ days from October 24, 2022 to November 28, 2022; and,

WHEREAS, the Planning Commission of the County of Imperial has been designated with the responsibility of adoptions and certifications; and,

NOW, THEREFORE, the Planning Commission of the County of Imperial **DOES HEREBY RESOLVE** as follows:

The Planning Commission has reviewed the attached Mitigated Negative Declaration (MND) prior to adoption. The Planning Commission finds and determines that the Mitigated Negative Declaration is adequate and prepared in accordance with the requirements of the Imperial County General Plan and Land Use Ordinance, and the California Environmental Quality Act (CEQA), which analyzes the project's environmental effects, based upon the following findings and determinations:

1. That the recital set forth herein are true, correct, and valid;
2. That the Planning Commission has reviewed the attached Mitigated Negative Declaration (MND) for the proposed project and considered the information contained in the Mitigated Negative Declaration together with all comments received during the public review period and prior to adopting the MND; and,
3. That the Mitigated Negative Declaration reflects the Planning Commission independent judgment and analysis.

NOW, THEREFORE, the County of Imperial Planning Commission **DOES HEREBY ADOPT** the Mitigated Negative Declaration for Initial Study #22-0025.

Jim Minnick, Director
Imperial County Planning &
Development Services

APN\040\170\010\IS22-0025 Forrester Road Bridge\Planning Commission\CEQA RESOLUTION is22-0025.docx

Attachment "D"
(EEC Packet)

PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE **AGENDA DATE: July 28, 2022**

FROM: PLANNING & DEVELOPMENT SERVICES **AGENDA TIME 1:30 PM/ No. 5**

Initial Study #22-0025
PROJECT TYPE: Forrester Rd. Bridge Replacement Project SUPERVISOR DISTRICT #3

LOCATION: 3712 Forrester Rd. APN: 040-170-010-000

Brawley, CA 92227 PARCEL SIZE: +/- 1 acre

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

ZONE (existing) A-2 (Medium Agriculture) ZONE (proposed) N/A

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

PLANNING COMMISSION DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE: _____

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 07/28/2022

INITIAL STUDY: 22-0025

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

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

REQUESTED ACTION:

(See Attached)

☐ NEGATIVE DECLARATION
☐ MITIGATED NEGATIVE DECLARATION

Initial Study & Environmental Analysis
For:

Imperial County Public Works Department (PWD)
Forrester Road over Westside Main Canal Bridge Replacement Project
County Project Number 6320; Federal Project Number BRLS-5958(094)
Initial Study #22-0025

Prepared By:

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

July 2022

EEC ORIGINAL PKG

TABLE OF CONTENTS

SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting with the proposed I.C. Public Works Department (PWD) Forrester Road over Westside Main Canal Bridge Replacement Project. (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.

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.

13. 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.

13. 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

13. **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

13. **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 potentially significant impact, potentially significant unless mitigation incorporated, less than significant impact or no impact.

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

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

SECTION 3

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

IV. PERSONS AND ORGANIZATIONS CONSULTED identifies those persons consulted and involved in preparation of this Initial Study 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; Appendix A) (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. **Potentially Significant Unless 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.

13. 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:

"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:

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

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

2. Incorporation By Reference

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

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

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

- This document must be available for inspection by the public at an office of the lead agency (CEQA

Guidelines Section 15150[b]). These documents are available at the County of Imperial Planning & Development Services Department, 801 Main Street, El Centro, CA 92243 Ph. (442) 265-1736.

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

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

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

II. Environmental Checklist

1. **Project Title**: Imperial County Public Works Department (PWD) Forrester Road over Westside Main Canal Bridge Replacement Project – Initial Study (IS) #22-0025
2. **Lead Agency**: Imperial County Planning & Development Services (ICPDS) Department
3. **Contact person and phone number**: Jose Castaneda, Administrative Analyst III, (442)265-1818
4. **Address**: 801 Main Street, El Centro CA, 92243
5. **E-mail**: JoseCastaneda@co.imperial.ca.us
6. **Project location**: The existing bridge is located on Forrester Road, approximately 10 miles north of Interstate 8, 5 miles southwest of Brawley, CA, crossing the Westside Main Canal. The bridge is approximately 1,330 feet south of the intersection of Forrester Road and Imler Road in Imperial County.
7. **Project sponsor's name and address**: Imperial County Public Works Department (PWD), 155 S. 11th Street, El Centro, CA 92243.
8. **General Plan designation**: Agriculture
9. **Zoning**: A-2 (General Agricultural).
10. **Description of project**: The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 55-mile-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway's vertical alignment by approximately 3.5 feet, to provide the required clearance between the Westside Main Canal and the bridge. The grade of the roadway approaches that are approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway, to meet the design speed, grade raise, and horizontal curve requirements. *See Appendix B for a detailed Project Description.*
11. **Surrounding land uses and setting**: Briefly describe the project's surroundings: The project site is surrounded by agricultural fields.
12. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.): Colorado River Regional Water Quality Control Board, California Department of Fish and Wildlife, State Water Resources Control Board, Imperial County Air Pollution Control District, and Imperial Irrigation District.

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 confidentially, etc.?

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 I contains provisions

specific to confidentiality.

ASM Affiliates, Inc. Senior Archaeologist Sherri Andrews wrote to the California Native American Heritage Commission (NAHC) on January 6, 2022, requesting a search of their SLF for the project. The NAHC responded to the request on March 7. 2022. In January 2022, Imperial County began its Assembly Bill (AB) 52 consultation with outreach to tribes who previously have requested consultation. Letters were sent by John Gay, Imperial County Director of Public Works, to the Fort Yuma–Quechan Indian Tribe and the Torres–Martinez Indian Tribe by certified mail on January 13, 2022. General scoping letters were sent to other potentially interested tribes on January 21, 2022. To date, no responses to the Ab52 consultation have been received. However, one tribe, the San Pasqual Band of Mission Indians, responded to an informational letter requesting consultation. Details of Native American consultation efforts are discussed in the attached Checklist under Section 2, Tribal Cultural Resources and included in Appendix E.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

ENVIRONMENTAL EVALUATION COMMITTEE (EEC) DETERMINATION

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

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

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

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

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

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

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

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

Jim Minnick, Director of Planning/EEC Chairman

Date: 7-28-2022

EEC ORIGINAL PKG

EEC ORIGINAL PKG

PROJECT SUMMARY

A. **Project Location**: The existing bridge is located on Forrester Road, approximately 10 miles north of Interstate 8, 5 miles southwest of Brawley, CA, crossing the Westside Main Canal. The bridge is approximately 1,330 feet south of the intersection of Forrester Road and Imler Road in Imperial County.

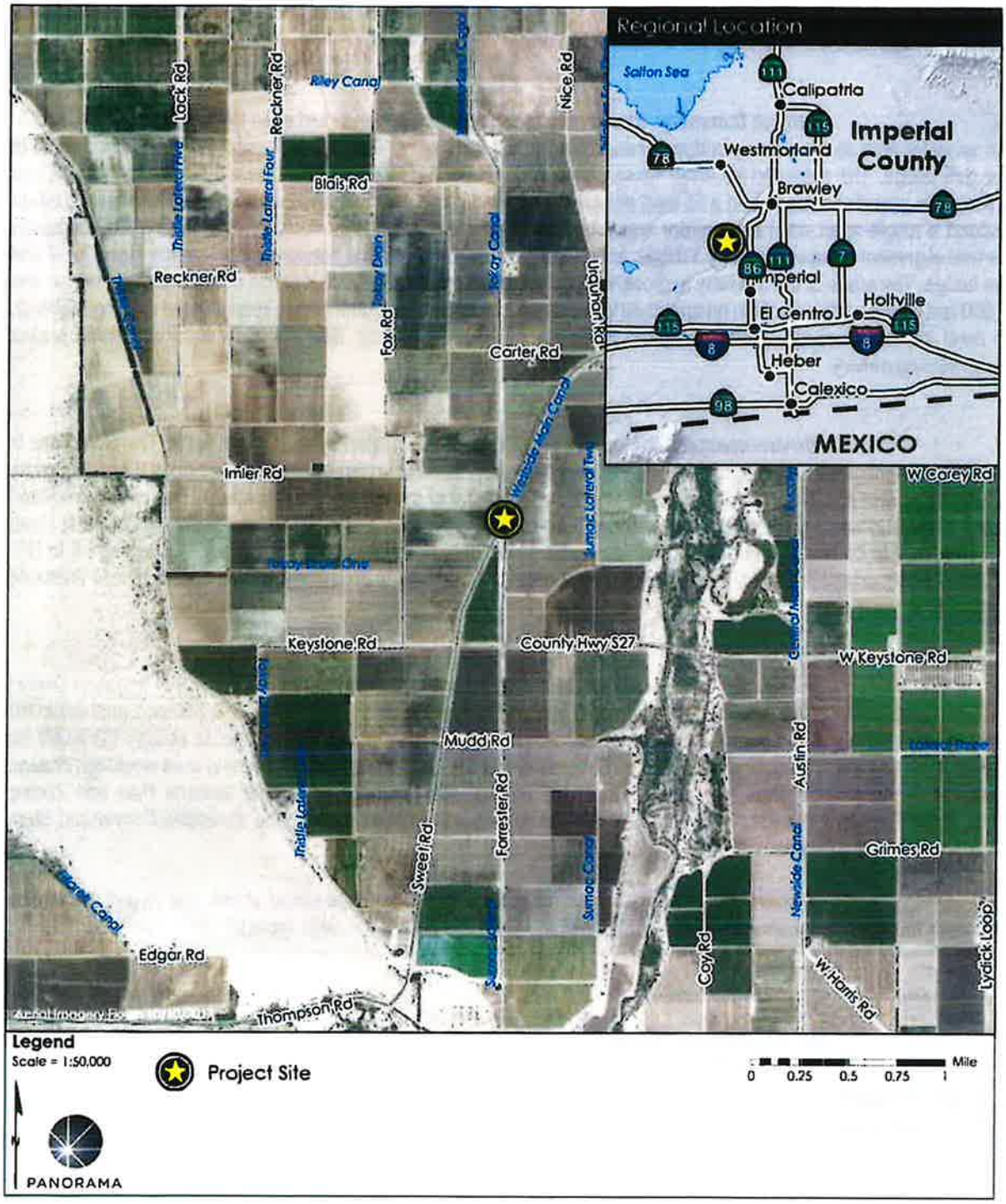
B. **Project Summary**: The proposed replacement bridge would span the Westside Main Canal in the same location as the existing bridge. A new culvert would convey the Sumac Canal under Forrester Road south of the new bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 55-mph design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway's vertical alignment by approximately 3.5 feet, to provide the required clearance between the Westside Main Canal and the bridge. The grade of the roadway approaches that are approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway, to meet the design speed, grade raise, and horizontal curve requirements. *See Appendix B for a detailed project description/summary.*

C. **Environmental Setting**: The project site is surrounded by agricultural fields. The project site is designated Agriculture and is zoned A-2 (General Agriculture). Several Imperial Irrigation District (IID) facilities cross under the project site. Nonnative vegetation grows along several of the conveyance structures that convey irrigation water to the surrounding agriculture fields, and is subject to IID operation and maintenance activities. Forrester Road is considered to be one the four major north-south corridors for handling freight in the County, connecting I-8 to SR-78/86 in Westmorland (Imperial County, 2021), and it is the only road in the area that provides access across Westside Main Canal.

D. **Analysis**: The County would obtain an encroachment permit from Imperial Irrigation District (IID) for construction of the replacement abutments and bridge over Westside Main Canal and Sumac Canal within IID right-of-way (ROW). A temporary construction easement from IID also would be required to occupy IID ROW for construction staging. The zoning and land use designations of the project site and surrounding area would not change because of the project. Thus, the project would not conflict with the Imperial County General Plan and Zoning Ordinance. Therefore, the adoption of the IS for this project would be consistent with the applicable County and State ordinances and regulations.

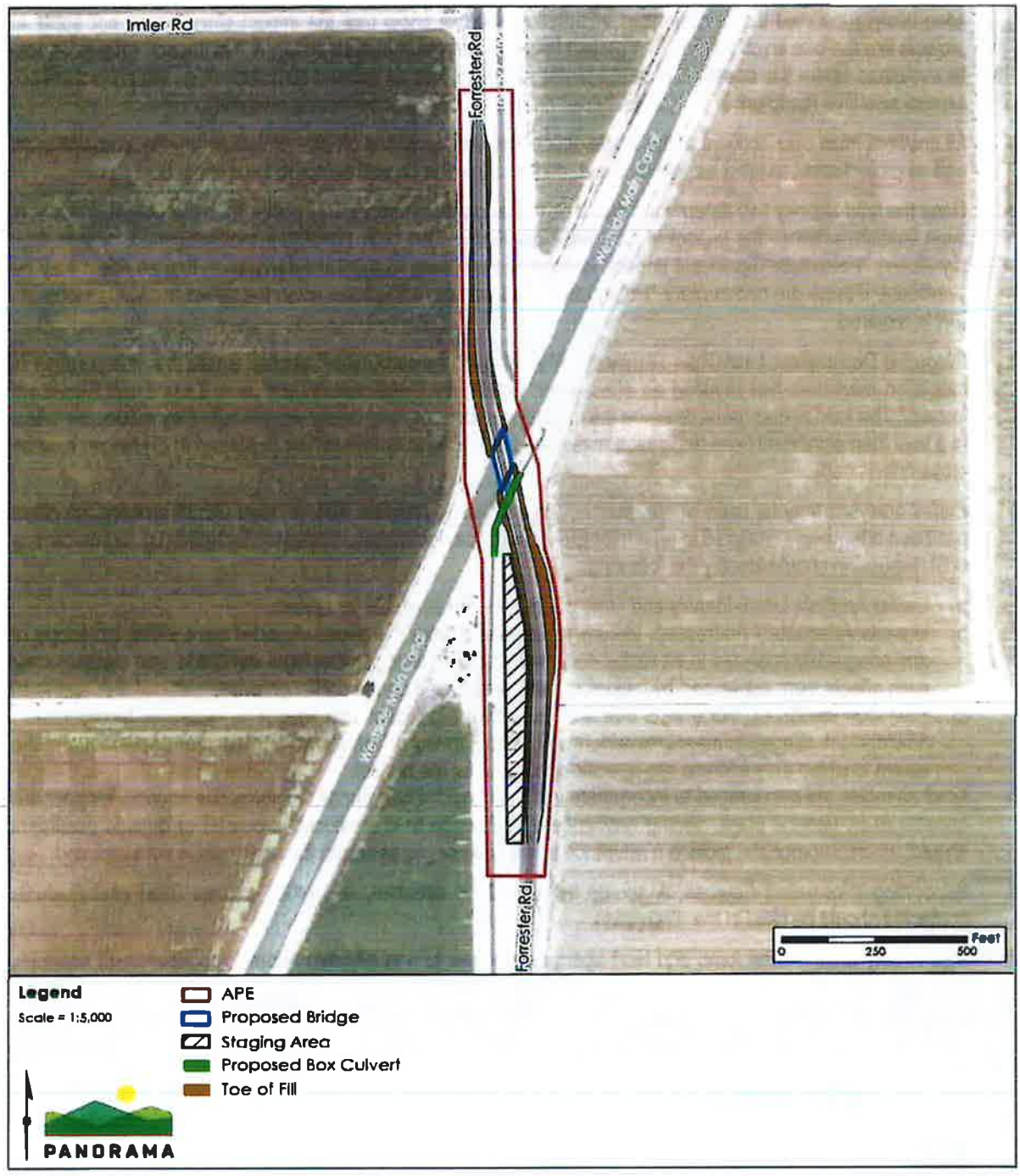
E. **General Plan Consistency**: In addition to the analysis stated above, the project application has been found to be consistent with the adoption of the IS for the proposed bridge replacement.

Exhibit "A"
Vicinity Map



EEC ORIGINAL PKG

Exhibit "B"
Site Plan/Tract Map/etc.



EEC ORIGINAL PKG

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

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

I. *AESTHETICS*

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

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

a) No designated or proposed scenic highway or scenic vistas are in the project vicinity. No views would be blocked or substantially altered by the project. No impact would occur.

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

b) **The project site is devoid of any trees, rock outcrops, or historic buildings, and therefore no scenic resources would be damaged by project implementation. No impact would occur.**

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? ☐ ☐ ☒ ☐

c) The project is in a non-urbanized area, characterized by agricultural land uses with agricultural irrigation canals. Public views of the project site would be limited to workers at the site during construction. Forrester Road will be closed to public traffic during the construction.
Construction is anticipated to take approximately 6 months and mostly would occur during daylight hours. Construction would be visible from a distance by agricultural workers in nearby fields, IID workers operating nearby canals, and by any vehicle passersby traveling along nearby roads. The overall visual character in the vicinity is low, and it offers limited visual interest to motorists. Thus, the new bridge would not degrade or obstruct the visual environment. The impact would be less than significant.

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

d) Project construction typically would occur during daylight hours, but some nighttime construction may be required during certain construction activities, such as temperature-sensitive concrete curing. The closest residence is approximately 1 mile northeast of the project site. Any nighttime lighting would be directed toward the work area and would have minimal effects on the nearby residence. Furthermore, the steel railing would be the only material used for the project that would have the potential to result in glare. Railings would be constructed of weathering steel, or an earth-tone paint would be applied to the steel bridge railing, to reduce potential glare and blend with the surrounding landscape. The project is not proposing any new sources of lighting. The impact would be less than significant.

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? ☐ ☐ ☐ ☒

a) Most project improvements and construction activities would occur within existing County ROW. The County would permanently acquire approximately 1 acre of new ROW to accommodate changes to the existing approach road elevation and softened curves in the roadway alignment. Farming is not and would not be permitted within the County ROW. The additional 1 acre of land proposed to be a part of the new County ROW is within land designated as Prime Farmland; however, it currently is not used for agricultural or prepared for farming, because of the location along, and adjacent to Forrester Road. Therefore, the acquired land would remain in non-agricultural use. The land within the new ROW would not be actively farmed, and no active agriculture would be lost.
In addition, the permanent changes proposed to the IID access roads (ditch banks) and Sumac Canal under Forrester Road

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

would not affect existing farmland. All project construction would occur within the footprint of the existing Sumac Canal, Forrester Road, and IID access roads. The new IID access spur roads and Sumac Canal would not convert Prime Farmland or Farmland of Statewide importance to non-agricultural use.
Temporary staging and overhead power utility relocations would occur within the County's existing and proposed ROW. Staging would occur in a previously disturbed location, adjacent to and west of Forrester Road, south of the canals. The overhead power transmission lines that run parallel to Forrester Road on both sides of the Westside Main Canal and the distribution and communication lines on the north end of the bridge would need to be relocated, to create a safe work buffer during construction activities. The extent and location of the relocated power lines would depend on the final bridge and roadway design selection. After construction is completed, the lines would be replaced within the existing County ROW. After completion of the proposed bridge and associated improvements, the bridge would have access similar to preconstruction conditions. No impact to prime farmland would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract? ☐ ☐ ☐ ☒
b) No Williamson Act contract lands exist in Imperial County, and therefore none are in or around the project site. Therefore, construction, including the temporary closure of the bridge, would not substantially conflict with existing agricultural use or land under a Williamson Act contract. Project construction would require temporary closure of the existing bridge and roadway approaches on either side of the bridge; however, access to agricultural access roads in and around the project site would be maintained for local traffic. No impacts are expected.

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))? ☐ ☐ ☐ ☒
c) The project site is not zoned for forest or timberland. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒
d) The project site does not have any forestland. In addition, no forest land is in or around the project site. The surrounding vegetation principally consists of small, nonnative plants and agricultural vegetation. No impact would occur.

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? ☐ ☐ ☐ ☒
e) The project would acquire approximately 1 acre of ROW, not part of existing active agriculture land. Project construction would not result in conversion of farmland to non-agricultural use. Project operation would allow safe access for agricultural workers and equipment to fields on either side of the Westside Main Canal and Sumac Canal. The relocated utility poles would remain outside active agriculture fields and would not interfere with agricultural operations. The project would not result in the conversion of farmland to non-agricultural use. No impact would occur.

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? ☐ ☐ ☒ ☐
a) The project could conflict with or obstruct implementation of the applicable regional air quality plans, 2009 SIP for PM10, 2009 Ozone Air Quality Management Plan, or 2013 SIP for PM2.5, if it is inconsistent with the emissions inventories included in the regional air quality plans. The ICACPD developed significance thresholds to determine whether projects are contributing to nonattainment of PM2.5, PM10, or 8 hour ozone. The project would not exceed the ICACPD thresholds, as discussed under impact b below. Because of the temporary nature of construction and minimal emissions, the project would not conflict with or obstruct implementation of the regional air quality plans. The construction will adhere to ICACPD requirements including Authorization to Construct, Permit to Operate and Dust Control Plan. After construction, the project would not result in any air emissions because the use of the replacement bridge would be the same as the existing bridge and road. The impact would be less than significant.

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 ☐ ☐ ☒ ☐

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

standard?

b) Construction vehicles and equipment use off-road, as well as soil-disturbing activities during demolition, construction, and repaving, would generate fugitive dust emissions (PM10 and PM2.5). Reactive organic gases (ROG) and nitrogen oxide (NOx) pollutant emissions would be generated from construction vehicle trips, truck hauling trips, and use of heavy-duty machinery. Paving and striping operations also would release ROGs.

Air emissions from construction were modeled for a 6-month period, starting in 2023. Emissions generated during project construction were modeled using the CalEEMod. The modeling outputs are provided in Appendix C. Watering during construction is modeled to occur three times a day, in compliance with Rule 801. Estimated emissions for construction of the bridge replacement and roadway approaches shown in Appendix C indicate that estimated unmitigated construction emissions would not exceed significance thresholds. The impact would be less than significant.

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

c) Construction vehicles and equipment used during demolition of the existing bridge and construction of the replacement bridge would result in temporary and relatively small amounts of diesel emissions. In addition, as stated above, construction vehicles and equipment used off-road, as well as soil-disturbing activities during demolition, construction, and repaving would generate fugitive dust emissions (PM_{10} and $PM_{2.5}$). ROG and NOx pollutant emissions would be generated from construction vehicle trips, truck hauling trips, and use of heavy-duty machinery. Paving and striping operations also would release ROGs. The closest residence, which qualifies as the only sensitive receptor near the project site, is approximately 1 mile away. No other potential sensitive receptors are in the vicinity that could be affected by diesel emissions or other pollutant concentrations. No impact to sensitive receptors would occur during construction. Traffic is not anticipated to increase after installation of the replacement bridge. No new air contaminants would be generated during operation. The project will comply with ICAPCD regulations. No impact would occur.

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

d) No significant number of people are ever in the project site. The closest residence, which qualifies as the only sensitive receptor near the project site, is approximately 1 mile away. The project would generate diesel exhaust emissions locally from use of construction vehicles and equipment. Any odors would dissipate quickly and would not adversely affect any sensitive receptors. Construction-related odors would not affect a substantial number of people. Operation of the replacement bridge would not generate any new odors. No impact would occur.

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? ☐ ☒ ☐ ☐

a) *Special Status Plants*- Based on the results of the literature review and the surveys conducted in 2021 by Panorama Environmental (Appendix D), no special-status plants were observed or anticipated to grow in the project site because of the high levels of disturbance within the existing ROW and agricultural operations in adjacent parcels. No impact would occur. *Special-Status Wildlife*-Two special-status wildlife species have the potential to occur in the project vicinity: burrowing owl and mountain plover, discussed next. *Burrowing Owl*-Burrowing owl has a moderate potential to occur in the project vicinity. No positive indicators of burrowing owl presence have been observed in the BSA. During the field surveys, only one burrow of the appropriate size and shape for burrowing owl use was observed. Although burrowing owl were not observed during protocol-level surveys conducted in 2021, suitable habitat is present at the project site, and burrowing owl could move into the area before the start of project construction. Construction activities including earth-moving and grading would occur at the project site and would have the potential to crush burrows, resulting in take of individuals if the species occupies any burrows at that time.

In addition, construction activities would result in an increase in noise and dust in the immediate project vicinity, which would have the potential to indirectly result in abandonment of burrows and movement of individuals away from the area. Night lighting, if required during construction, would have the potential to result in an indirect impact on burrowing owl through

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

disturbance. If burrowing owl is present during construction, the direct and indirect construction impacts on the species would be potentially significant. *Mitigation Measure BIO-1 would require preconstruction burrowing owl surveys to determine whether suitable habitat in the project site is occupied. If preconstruction surveys indicate the presence of the species in the project site, the County would prepare a burrowing owl mitigation plan to identify specific procedures for avoiding and/or relocating individuals.* The County would provide preconstruction survey reports and the mitigation plan to CDFW for review before the start of construction. Active nests would not be disturbed, and exclusion buffers would be established as necessary, in accordance with Mitigation Measure BIO-1. Construction within the exclusion buffer would occur only after young have fledged the nest. After project construction, minimal operation activities and maintenance needs would be required and generally would be limited to typical road and bridge maintenance activities. Noise during project operation is not expected to increase in comparison with existing ambient noise (e.g., noise from truck traffic, agricultural operations), because vehicle traffic would not increase because of the project. The impact would be less than significant with mitigation incorporated. *Mountain Plover*-Mountain plover has low to moderate potential to occur in the project vicinity. The project site is within the species' documented winter range; mountain plover does not breed in California. The species may use agricultural fields adjacent to the project site for foraging. Construction activities are not anticipated to deter mountain plover from foraging in nearby fields because of the level of human activity that occurs in the project vicinity, including traffic on Forrester Road, IID traffic on canal access roads, and farm equipment operating in agricultural fields. The impact would be less than significant. *Migratory Birds*-Migratory birds protected under the Migratory Bird Treaty Act would have the potential to nest on or adjacent to the project site. Swallows have been observed nesting under the existing bridge. If construction occurs between January 1 and August 31, the common breeding season for most migratory birds in Imperial County, direct impacts on nests and/or nesting activities could occur. Demolition of the existing bridge could result in destruction of swallow eggs or nests. The impact on nesting birds would be potentially significant. Implementation of *Mitigation Measure BIO-2 would require conducting nesting bird surveys before the start of construction, removal of inactive and partially constructed swallow nests on the bridge, and implementation of avoidance buffers around active nests.* After project construction, minimal operation and maintenance activities would be required and generally would be limited to those typical for roads and bridges. Noise during project operation is not expected to increase because the project would not cause an increase in vehicle traffic. The impact would be less than significant with mitigation incorporated. Overall this item is checked as potentially significant unless mitigated, with the mitigation being *BIO-1 and BIO-2* mentioned above.

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? ☐ ☐ ☒ ☐

b) Earthen-lined canals and irrigation ditches could be regulated by CDFW under FGC Section 1600. The project could cause temporary impacts from water diversion and earth-moving activities during removal of the existing bridge and construction of the new bridge. Rock slope protection or permanent sheet piles could cause permanent impacts on the Westside Main Canal's earthen banks. Vegetation along the Westside Main Canal is maintained regularly by IID and does not provide habitat to support wildlife. The County would coordinate with the IID for encroachment permit to assure construction does not impact IID operations and will consult with CDFW to determine if a Streambed Alteration Agreement is required for modifications to vegetation associated with the Westside Main Canal. By entering into a Streambed Alteration Agreement with CDFW, the County would ensure that potentially significant impacts on sensitive natural communities would be avoided or compensated. The impact would be less than significant.

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? ☐ ☐ ☐ ☒

c) No State or federally protected wetlands occur at the project site. A potential wetland occurs outside the project site, west of the Sumac Canal. No project activities are proposed within the potential wetland. Indirect impacts on the potential wetland are not anticipated to occur because the potential wetland is across the Sumac Canal, adequately separated from project activities to ensure that surface runoff from the project site would not reach the potential wetland. No impact would occur.

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

d) The existing bridge and the Westside Main Canal would have the potential to serve as a movement corridor for small and common wildlife species, such as rodents or small common reptiles. The closest alternative crossing points are Urquhart Road, approximately 1 mile northeast of the project site, and West Keystone Road, approximately 0.67 mile southwest of the project site. Although the existing bridge could serve as a wildlife corridor, the new bridge would be constructed after removal of the existing bridge. This corridor would be unavailable for a short time during construction (approximately 6 months). Populations of rodents, reptiles, or other common species would not be significantly affected. The most common migratory wildlife in the area are birds, whose movement would not be affected by project activities. The drains and canals in the project

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

vicinity would not be removed during construction. Construction activities would occur within the Westside Main Canal but would not alter the flow permanently. The impact would be less than significant.

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

e) No local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, apply to the project site. No impact would occur.

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? ☐ ☐ ☐ ☒

f) The project site is not within the area covered by an adopted habitat conservation plan or natural community conservation plan. No impact would occur.

V. *CULTURAL RESOURCES*

Would the project:

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

a) The field survey and records search identified one previously recorded cultural resource in the survey area, a segment of IMP-7834, the Westside Main Canal. The associated Sumac Lateral Canal also was identified in the survey area. Both of these resources are recommended to be considered eligible for the NRHP (See Appendix E). The Project would result in some physical effects to the Westside Main Canal, limited to the small section where the canal and Forrester Road Bridge intersect. Specific physical effects consist of demolition of some of the canal lining for the removal of the existing bridge piers and installation of new abutments to support the new bridge. The Project also requires the reconstruction of headwall structures on the Sumac Canal to avoid conflict with the rebuilt road segments. The total length of the Sumac Canal is 9.1 mi. and a buried culvert section of 120 ft. will be replaced with 410 ft., resulting in a .6% change to the canal overall.

The historic property would not be removed from its historic location (iii). The property would continue to be in operation as a canal and would therefore not be neglected (vi); and the property is not in federal control and would therefore not be transferred from federal ownership without enforceable conditions (vii). However, the project does have the potential to directly and indirectly affect the Westside Main and Sumac canals due to physical changes resulting from the replacement of the bridge which requires headwall reconstruction and realignment of a portion of the Sumac Canal. Specifically, it has the potential to affect the historic property in the following ways:

i. Physical destruction of or damage to all or part of the property – Removal of the existing bridge piers on the canal floors and installation of new abutments into the canal banks and the burial of the portion of the Sumac Canal that is being abandoned and replaced by the new alignment;

ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, and hazardous material remediation that is not consistent with the SOIS (36 CFR part 68) and applicable guidelines – The headwalls for the Sumac Canal will have to be reconstructed to avoid conflict with the new road segments and the portion of the abandoned canal will be buried with fill;

iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance – While the use would not be changed, some of the physical features within its setting would be modified; and

v. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features – New headwalls and a new segment of the canal would be constructed.

The potential effects identified in Criteria i, iv, and v can be adequately analyzed by applying Criterion ii and analyzing the proposed work related to the historic property for compliance with the Secretary of Interior Standards (SOIS) for Rehabilitation. The Rehabilitation Standards allow for reasonable change to a historic property, including related new construction and changes to setting, provided that change does not destroy Character Defining Features unnecessarily or impair a historic property's ability to convey its significance. To ensure that it continues to comply with the Rehabilitation Standards as design and construction progress, an *SOIS Action Plan* was prepared and will be implemented as part of the Project (Appendix E), which identifies the specific tasks during each stage of the undertaking that will be required to ensure the work complies with the Rehabilitation Standards, as well as the responsible parties for ensuring that each task is completed. Therefore, compliance with the SOIS Action Plan (Appendix E) will ensure no significant impacts to historic resources. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *SOIS Action Plan* as mitigation mentioned above.

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

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

b) No prehistoric archaeological resources have been identified within the project's APE. Although some new ground disturbances are anticipated in connection with the Sumac Lateral Canal culvert, the presence of previously undocumented cultural resources is considered to be unlikely, based on prior disturbances within the project's APE as well as the lack of other resources in the area. In addition, project construction would require ground-disturbing work during demolition and regrading Forrester Road. A temporary power pole may be installed outside the project site before the bridge construction. The area is highly disturbed from construction of the previous roadway, bridge, and Westside Main Canal, as well as from agricultural activities. Although unlikely, previously undiscovered historic or archaeological resources that are eligible for listing in the CRHR could be uncovered during ground-disturbing work. Impacts on any previously undiscovered historic or archaeological resources that are eligible for listing in the CRHP would be potentially significant.
Implementation of *Mitigation Measure CUL-1* would require that if previously unidentified cultural materials are unearthed during construction, work would have to be halted in that area until a qualified archaeologist could assess the significance of the find. The impact would be less than significant with mitigation incorporated. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure CUL 1*, mentioned above.

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

c) The project is not within a dedicated cemetery. **Project construction would require ground-disturbing work during demolition and regrading of the road. The area is highly disturbed from construction of the previous roadway, bridge, and Westside Main Canal, as well as from agricultural activities. The applicant and contractors shall be subject to the California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98 during the construction phase. No impact is expected.**

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? ☐ ☐ ☒ ☐

a) During all stages of construction, the project would result in consumption of energy resources, including fossil fuels. Consumption of energy would be necessary to efficiently construct the project, consistent with established standards and modern practices. Although construction activities would consume energy, the scale and temporary nature of this construction would be such that any minor inefficient energy consumption would not significantly impact the environment. Project construction would not result in significant wasteful or unnecessary consumption of energy resources.
Project operation would result in consumption of energy resources, including fossil fuels, for activities such as maintenance and repair of the bridge. These operational activities would be similar to current operations and would not significantly impact the environment. Energy consumption for maintenance likely would be reduced, compared to the existing bridge, because the new bridge would meet AASHTO and Caltrans design standards. Project operation would not result in significant wasteful or unnecessary consumption of energy resources. The impact would be less than significant

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

b) Project construction and operation would result in consumption of both renewable and nonrenewable energy resources. Per CARB's Climate Change Scoping Plan Update (2017 Scoping Plan), construction activities are recommended to comply with equipment idling time restrictions, using grid power for electric energy rather than operating temporary gasoline/diesel-powered generators and increasing use of electric and renewable fuel-powered construction equipment. The project would be subject to the 2017 Scoping Plan, the Imperial County Regional Climate Action Plan, and recommended actions. Project operation would result in consumption of energy resources, including the use of fossil fuels for activities such as maintenance and repairs. These operational activities would be similar to current operations and would not add additional energy use. Because the project would be subject to State plans and policies, including the 2017 Scoping Plan recommendations, it would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant

VII. *GEOLOGY AND SOILS*

Would the project:

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

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

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? ☐ ☐ ☐ ☒

1) The Alquist-Priolo Earthquake Fault Zone Act is designed to mitigate surface fault rupture by preventing construction of buildings for human occupancy across an active fault. The project site is not within an Alquist-Priolo fault zone, and it does not include a building for human occupancy. No impact would occur.

2) Strong Seismic ground shaking? ☐ ☐ ☒ ☐

2) Severe ground shaking would have the potential to cause injury to workers during the replacement bridge construction. However, because of the short duration of construction (approximately 6 months), the potential for strong seismic shaking to occur and harm construction workers would be minimal. The proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Therefore, the new structure would withstand most seismic shaking. Significant operational impacts from strong-seismic ground shaking are not expected. The impact would be less than significant.

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

3) Seismic events could result in liquefaction occurring at the project site. However, because of the short duration of construction (approximately 6 months), the potential for liquefaction to occur and harm construction workers would be minimal. The proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Therefore, the new structure would be designed to withstand most liquefaction events. The impact would be less than significant.

4) Landslides? ☐ ☐ ☐ ☒

4) The project site and surrounding area are flat and not prone to landslides. No impact would occur.

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

b) During project construction, exposed soil could erode from stormwater runoff or wind, although the project site soil types are well drained and with very low run-off. The project would require grading of approximately 2.63 acres during widening of the Forrest Road bridge approaches. As the grading would exceed the 1-acre threshold, a National Pollutant Discharge Elimination Service (NPDES) General Permit for Construction Activities would be required. The NPDES General Construction Permit would require that a Storm Water Pollution Prevention Program (SWPPP) be prepared by a Qualified SWPPP Developer and would include best management practices (BMPs) to reduce erosion of disturbed soil. BMPs would be implemented during site preparation and before grading. Construction BMPs could include hydroseeding and the use of straw hay bales and silt fences to control release of sediment. In addition, the SWPPP would limit construction to the non-rainy season. The SWPPP would be submitted to the Imperial County Public Works Department for approval before issuance of a grading permit. The impact would be less than significant.

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? ☐ ☒ ☐ ☐

c) Soil at the project site is well drained, and the topography is relatively flat. Subsidence caused by groundwater withdrawal can occur in unconsolidated to semi-consolidated sediments containing confined or semi-confined sand and gravel aquifers, inter-bedded with clay sediments. However, despite annual season fluctuation of groundwater levels, no major subsidence has occurred on the valley floor, where potential subsidence is considered moderate to low based on the hydrological conditions.

The landform is relatively flat across Imperial County, including the project site, and therefore it is not susceptible to landslides. However, the earthen slopes along the water canal could be susceptible to potential failure and lateral spreading during construction. Liquefaction also is common in Imperial County because of a relatively high groundwater table. Construction activities, including use of equipment, large vehicles, pile driving, and cut and fill would have the potential to destabilize these slopes and damage the banks of these water conveyance structures Therefore, the impact from slope destabilization could be potentially significant. Implementation of *Mitigation Measure GEO-1* would require evaluation of existing and proposed slopes in the project site for stability, construction plans to incorporate design measures dependent on evaluation, and cessation of construction activities during heavy rains to limit the potential for slope destabilization. Furthermore, the proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Therefore, the new structure would withstand most liquefaction events, lateral spreading, subsidence, and collapse. Significant operational impacts from ground failure would not occur. The impact would be less than significant with mitigation incorporated. Overall this item is checked as potentially significant unless mitigated, with the

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mitigation being the *Mitigation Measure GEO-1* mentioned above.

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

d) As previously mentioned, the soil at the project site is characterized by very fine sandy loam, silty clay loam, loamy very fine sand, and silty clay, and would be unlikely to exhibit expansive properties. The replacement bridge would be designed to American Association of State Highway and Transportation Officials' (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications with California Amendments (fourth edition), as well as to Caltrans Seismic Design Criteria, Version 1.6. The project would not create a substantial direct or indirect risk because of the absence of expansive soils. No impact would occur.

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

e) No septic tanks or alternative wastewater disposal systems would be constructed as part of the project. No impact would occur.

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

f) Project construction would require ground-disturbing work during demolition and regrading of the bridge approaches on Forrester Road. The area already is disturbed from construction of the previous roadway, bridge, and canal, as well as from agricultural activities. However, previously undiscovered paleontological resources could be found during ground disturbing work because of the sensitivity of the geologic formation underlying the project site. Compliance with the California Health and Safety Code § 7050.5, CEQA §15064.5, and California Public Resources Code §5097.98 in the event of unexpected finding will lessen impacts to less than significant levels.

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? ☐ ☐ ☒ ☐

a) Construction of the replacement bridge and roadway approaches would generate GHG emissions from use of construction equipment, haul trucks, and vehicles used for construction worker transportation. GHG emissions were estimated using CalEEMod. Project construction would generate 141 metric tons CO_2e in 2023, which would not exceed SCAQMD's threshold of 3,000 metric tons CO_2e per year threshold that was chosen for this project ~~(Appendix C). During~~ project operation, the replacement bridge would not increase traffic capacity. Therefore, the level of traffic in the area would be similar to existing conditions. GHG emissions would not increase. The impact would be less than significant.

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

b) Imperial County recently developed a Regional Climate Action Plan (CAP). The primary objective of the Regional CAP is to identify strategies and measures that will assist local agencies in reducing GHG emissions to levels consistent with State targets and goals. The 2017 Climate Change Scoping Plan provides a pathway to achieving State targets as directed by AB 32, Senate Bill (SB) 32, and Executive Orders B-30-15 and S-3-05. These targets are consistent with prevailing climate science and the State's role in stabilizing global warming below dangerous thresholds. The State's legislative goals aim to reduce statewide emission to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. To achieve GHG reduction targets and goals, jurisdictions within the Imperial Valley can implement a variety of reduction measures. To assist local agencies in identifying and quantifying reduction measures, Imperial County Transportation Commission, in partnership with local agencies, identified measures for each emissions sector that could be implemented regionally. These measures are focused on reducing emissions on the local scale and to close the emissions gaps (i.e., the amount of GHG emissions that would need to be reduced to achieve reduction targets and goals) for each jurisdiction. The Regional CAP includes 46 locally based strategies, under five emissions sectors. These local measures are intended to serve as the foundation for identifying and addressing ways in which the region can reduce GHG emissions. Project construction activities would comply with equipment idling time restrictions, using grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing the use of electric and renewable fuel-powered construction equipment. The project would not conflict with an applicable plan or policy or regulation adopted for reducing GHG

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emissions. The impact would be less than significant.

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? ☐ ☒ ☐ ☐

a) Samples of the paint on the existing bridge exceeded their respective report detection limits for lead, indicating lead-based paint (LBP). Samples of the wood on the existing bridge indicated the presence of copper, arsenic, and chromium that exceeded Total Threshold Limit Concentration (TTLC) values, indicating that the wood contains heavy metals (Appendix F). Asbestos was not detected in the samples.
Because the land adjacent to the project site is used for agriculture purposes, surface soils samples also were analyzed for total petroleum volatile organic compounds (VOCs), pesticides, herbicides, and polychlorinated biphenyls (PCBs). None of these contaminants were detected in the samples above their respective detection limits.
Demolition of the existing bridge could expose construction workers or the environment to hazards during construction and transport of demolition materials from the project. The impact on the public and environment from the use, disposal, or transport of hazardous materials of existing on-site contaminates would be potentially significant. Implementation of *Mitigation Measure HAZ-1* would require the proper handling of LBPs and materials containing chromium, including their proper disposal. Other hazardous materials present during project construction may include gasoline, diesel fuel, hydraulic oils, equipment coolants, and any generated wastes that may include these materials. Fueling of equipment and vehicles may be performed on site; therefore, gasoline and diesel fuel would be stored in small quantities at the staging areas during construction. Although very few individuals live and work in the area, a hazard to the public or the environment could occur through the transport, use, and temporary storage of gasoline and diesel fuel at the project site. Spill response and control would be addressed in the project-specific SWPPP, as required by the State Water Resources Control Board (SWRCB), Construction General Permit (CGP) (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ). Compliance with the spill control and response measures in the SWPPP would reduce the risk to the public and environment from transport and use of hazardous materials. After construction is completed, the project would not require the use, disposal, or transport of hazardous materials. The impact would be less than significant with mitigation incorporated. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure HAZ-1* mentioned above.

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? ☐ ☒ ☐ ☐

b) Construction equipment and vehicles would use small amounts of hazardous materials, including diesel fuel, oil, and gasoline. A spill of such materials would be unlikely to occur but could result in a potentially significant impact if it contaminated the Westside Main Canal or the Sumac Canal. Spill response and control would be addressed in the project-specific SWPPP, as required by the SWRCB's CGP. Compliance with the spill control and response measures in the SWPPP would reduce the impact from hazardous spills during construction to less than significant.
Contaminated debris, particularly paint chips and wood pieces, could fall into the canal during demolition activities. Fallen debris could increase levels of toxic metals in the canal and downstream water bodies. Implementation of *Mitigation Measure HAZ-2* would require development and implementation of a debris collection and containment program, including a lead compliance plan, which would prevent the accidental release of lead into the environment. The impact would be less than significant with mitigation incorporated.
Potential contamination of the water in the canal from spills of fuels would not increase over existing conditions after construction is completed. The concentration of pollutants in stormwater runoff likely would be reduced because of the removal of hazardous paint and materials present on the existing bridge. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure HAZ-2* mentioned above.

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

c) No schools are within 0.25 mile of the project site. The nearest schools to the project site are in Brawley and Imperial, which are both approximately 7 miles from the project site. No impact would occur.

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

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d) The project site is not a hazardous materials site and does not have a known historical use involving hazardous materials. No impact would occur.

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

e) The project site is not within 2 miles of a public airport. No impact would occur.

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

f) Imperial County adopted the Imperial County Multi-Jurisdiction Hazard Mitigation Plan in 2021. Evacuation during emergencies, particularly flooding, is discussed in the plan, but specific evacuation routes are not identified throughout the county. Therefore, the project would not interfere with, or impair the adopted plan (see Section 4.17, Transportation, Impact d) for an analysis of impacts on emergency access.
Although Forrester Road is not identified in the mitigation plan as an evacuation route, it is considered to be one the four major north-south corridors for handling freight with the County, connecting I-8 to SR-78/86 in Westmorland, and is the only road in the area that provides access across Westside Main Canal (see Section 4.15, Public Services regarding emergency access services during project construction). Forrester Road would be closed between Imler Road and West Keystone Road approaching the bridge structure during project construction, expected to take approximately 6 months. Nearby roads, including West Keystone Road to SR86, would be used as a detour to maintain access on either side of the project site, which would delay travel time approximately 11 minutes. The Forrester Road closure would be an inconvenience for freight and other traffic routinely traveling along Forrester Road during the 6 months of construction. However, the detour route would be established during construction to maintain access around the project site and emergency access via the Westside Main Canal in the case of an emergency. Operation of the replacement bridge would not interfere with emergency response or evacuation plans. The impact would be less than significant.

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

g) The project site is in an LRA outside any severe fire hazard area. No structures are in the project area or vicinity to expose people or structures to risk of loss or injury involving wildfires. The project area contains regularly irrigated agricultural fields, and the vegetation along the canal banks are very minimal. No vegetation is in the proposed staging area, and little to no dry vegetation is along the sides of the road. Construction equipment could create sparks and ignite a fire during project construction, but the project site has very little dry vegetation and is surrounded by irrigated crops. Use and maintenance of the proposed bridge would not increase the risk of fire hazard. The impact would be less than significant.

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? ☐ ☒ ☐ ☐

a) Impacts on water quality from project construction potentially could occur from release of water from dewatered construction excavations; from sedimentation and runoff from exposed surfaces; from turbidity from removal of piles currently within the canal; from debris and fine particulates falling into the canal from bridge demolition; from accidental loss of concrete during pouring of the abutments; and from the initial diversion of water into the new Sumac Canal (Appendix G). Dewatering in the area of the existing abutments would be required during construction. Sheet piles would be installed around the existing abutments to dewater and divert channel flows away from the construction area. Discharge of surface or groundwater during construction must comply with General Waste Discharge Requirements and General NPDES Permit for Low Threat Discharges to Surface Waters within the Basin (Order No. R7-2013-0011, NPDES No. CAS617002) and any subsequent updates to the permit at the time of construction. The General Waste Discharge Permit addresses temporary dewatering operations during construction (i.e., dewatering of the area for the bridge abutments). Caltrans dewatering BMPs (NS-2 "Dewatering Operations") must be used to control sediment and pollutants, and the discharges must comply with the waste discharge requirements, issued by the Colorado River RWQCB.
Project implementation would require grading of more than 1 acre, which would have the potential to cause erosion and sedimentation of the Westside Main Canal, Sumac Canal, and Sumac Lateral Canal. A General NPDES Permit would be required for the construction activities, as described in Section 4.7, Geology and Soils, impact b). The contractor would be required to implement an SWPPP, in compliance with the CGP, including associated sediment and erosion control BMPs, as

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detailed in the Caltrans Stormwater Quality Handbook. The project SWPPP would include the following BMP measures: Scheduling (SS-1), Preservation of Existing Vegetation (SS-2), Earth Dikes/Drainage Swales and Lined Ditches (SS-9), Streambank Stabilization (SS-12), Temporary Silt Fence (SC-1), Gravel Bag/Earthen Berm (SC-6), Street Sweeping (SC-7), Wind Erosion Control (WE-1), Temporary Construction Entrance/Exit (TC-1), Water Conservation Practices (NS-1), Dewatering Operations (NS-2), Paving, Sealing, Sawcutting, and Grinding Operations (NS-3), Clear Water Diversion (NS-5), Vehicle and Equipment Fueling (NS-9), Vehicle and Equipment Maintenance (NS-10), Pile Driving Operations (NS-11), Concrete Curing (NS-12), Concrete Finishing (NS-14), Structure Demolition/Removal Over or Adjacent to Water (NS-15), Material Delivery and Storage (WM-1), Material Use (WM-2), Stockpile Management (WM-3), Spill Prevention and Control (WM-4), Solid Waste Management (WM-5), Hazardous Waste Management (WM-6), Concrete Waste Management (WM-8), Sanitary and Septic Waste Management (WM-9), Liquid Waste Management (WM-10). Construction activities would comply with all permit requirements.

Removal of the existing piles in the Westside Main Canal could cause a sediment pulse release in the Westside Main Canal as the broken off piles are lifted from the canal. This method would result in less turbidity than installation and removal of a temporary sheet pile containment system. Special-status fish are not known to occur in the Westside Main Canal in the project vicinity. Nonnative and common fish species, including blue gill and catfish, are known to occur in the All-American Canal that feeds the Westside Main Canal, although fish surveys have not been completed on the canal system. Increased sediment could affect these common species, if present, but because of the limited duration of activities proposed for the Westside Main Canal, the project would not interfere substantially with use of the Westside Main Canal by wildlife. Suspended sediment would dissipate quickly and not rise to a level that would interfere substantially with or adversely affect Westside Main Canal operations or beneficial uses, including WARM, WILD, and RARE, identified by the Colorado River RWQCB.

Demolition of the bridge over the canal could result in debris and fine particulates falling into the canal. A net would be cast under the bridge during demolition to catch falling debris. LBP on the existing bridge would be contained with implementation of *Mitigation Measure HAZ-2* and would not enter the water. In addition, ICAPCD's Rule 801 would require watering every hour, which substantially would reduce fine particulates from entering the canal or other water conveyance structures from exposed soils around the canal. Excavation for the new abutments would be outside the canal. Pile caps for the new abutments would be poured on site from ready-mix trucks. The new abutments would be formed and poured on site. The BMPs incorporated into the SWPPP would minimize the potential for concrete pouring, curing, and washout to affect water quality in the canal.

No additional ground disturbance would occur after the construction is completed. Traffic and usage would not change from current conditions. Sediment and other pollutants from vehicles driving on the bridge currently may enter the Westside Main Canal under existing conditions. The grading would be designed to promote sheet flow away from the Westside Main Canal. Runoff would not flow directly into the Westside Main Canal off the bridge. Final site grading and bridge design will limit storm drainage flow from entering the Westside Main Canal from either side of the proposed bridge. Rock slope protection proposed as part of the project would limit erosion. Sedimentation is not anticipated to increase. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure HAZ-2* mentioned above.

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

b) The bridge improvement project is not expected to use any groundwater. Water needed for dust suppression during construction would be obtained from an existing water source, likely from the Westside Main Canal, through the IID encroachment permit process. Water in the region is supplied from the Colorado River, not groundwater sources. No groundwater is found in the area. The widened approach roadways would not measurably decrease groundwater recharge because runoff from the approaches would flow off the road into the Westside Main Canal or other water conveyance structures. No impact is expected.

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: ☐ ☐ ☒ ☐

(c) The proposed project is not expected to alter the existing drainage pattern of the site or area, less than significant impacts are expected.

(i) result in substantial erosion or siltation on- or off-site; ☐ ☐ ☒ ☐

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

(i) Dewatering in the area of the existing abutments would occur during construction. The dewatering would be minimal in comparison to the flow in the Westside Main Canal and would not alter existing drainage substantially. The existing piles would be removed during construction, which could result in a temporary increase in siltation. The replacement of abutments and temporary construction dewatering would not alter drainage of the Westside Main Canal substantially. Siltation would be minimized using BMPs, identified in the SWPPP. As analyzed under impact a) above, pile removal could result in substantial siltation of the Westside Main Canal, but the effects from sedimentation would be minor because they would not affect any beneficial uses. Project operation would increase impermeable surfaces by less than 0.25 acre from widening the paved roadway approaches. The small increase in impervious surfaces would have the potential to increase runoff, erosion, and siltation, but not substantially. The Westside Main Canal flow would be improved by removal of the piles within its channel. The impact would be less than significant.

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

(ii) IID would require the underside of the replacement bridge to maintain the existing freeboard above the Westside Main Canal. As described under impact c) i) above, the Westside Main Canal would not be substantially altered. The construction activities would not result in on- or off-site flooding. The project would not alter the Westside Main Canal substantially or affect the flow of the water. The existing drainage patterns would be maintained on the project site. No new drainage features would be constructed along the roadway approaches, but direct runoff from the replacement bridge into the Westside Main Canal would not occur. The project would increase impermeable surfaces by less than 0.25 acre from widening the paved roadway approaches. The small increase in impervious surfaces would have the potential to increase runoff. The small area of additional impervious surface and alteration of bridge drainage would not cause flooding on or off-site because the additional impervious surface area would be too small to affect peak flood flows in the area and precipitation is low in the region. The project would not substantially affect on or off-site flooding. The impact would be less than significant.

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

(iii) No stormwater facilities are on the project site. The project would not generate a significant amount of runoff water during construction, including watering for dust control. Dust control water would evaporate before running off-site. The existing drainage patterns would be maintained on the project site. No new drainage features would be constructed along the roadway approaches; direct runoff from the replacement bridge into the Westside Main Canal would not occur. The project would not increase pollutants present in runoff. The project would increase impermeable surfaces by less than 0.25 acre from widening the paved roadway approaches. The new impervious surface would not contribute additional sources of polluted runoff because of the limited size of the bridge and the function of the new bridge's drainage system. The impact would be less than significant.

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

(iv) The replacement bridge and roadway approaches would not be within a 100-year flood zone. The project would not affect any IID levees or any flood control facilities in the area. The impact would be less than significant.

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

d) The replacement bridge and roadway approaches would not be within a 100-year flood zone. No large water bodies are in the project vicinity.

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

e) The project would not violate groundwater quality standards or increase surface water runoff with required contractor implementation of the SWPPP. The project would not increase traffic capacity or type of traffic use; therefore, the project would not increase the pollutant load from roadway surface runoff. Drainage would be designed to sheet flow off the roadway, away from the Westside Canal and into existing drainage swales, not increasing the pollutant load in the surface water. The impact would be less than significant.

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

XI. ***LAND USE AND PLANNING***

Would the project:

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

a) The project site is in unincorporated Imperial County. The project site is not within an established community, and the project would not divide a community. During project construction, Forrester Road would be closed to through traffic; however, detours around the project would be provided along other local roads. After construction is completed, Forrester Road would provide the same access across the Westside Main Canal as the existing bridge. No impact is expected.

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? ☐ ☐ ☐ ☒

b) The project site and surrounding area land use is designated as Agriculture by Imperial County. The zoning of the project site is General Agricultural Zone (A2) according to the Imperial County Zoning Code, which permits agricultural and grazing uses.. The County would acquire approximately 1 acre of new ROW, adjacent to the existing ROW. No change to land use or zoning would be required because of the ROW acquisition.
The County would obtain an encroachment permit from IID for construction and replacement of the bridge and any structures within the IID ROW, such as the bridge abutments in the Westside Main Canal. The zoning and land use designations of the project site and surrounding area would not change because of the project. Thus, the project would not conflict with the Imperial County General Plan and Zoning Ordinance. No impact is expected.

XII. ***MINERAL RESOURCES***

Would the project:

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

a) No known mineral resource sites are on the project site. Land in Imperial County has not been classified by the California Department of Conservation into Mineral Resource Zones. Several sand and gravel mines are within 10 miles of the project area. The nearest sand and gravel mine is 3.4 miles south of the project site. The impact is less than significant.

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? ☐ ☐ ☐ ☒

b) No known mineral resource sites are on the project site. The project would replace the existing bridge and would not change the use of the project site or adjacent parcels. The project would not cause the loss of a mineral resource recovery site. No impact is expected.

XIII. ***NOISE***

Would the project::

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? ☐ ☐ ☒ ☐

a) Ambient noise levels in the project vicinity generally are low and mostly are natural noises, punctuated by occasional human-made noises associated with agriculture. Human-generated noise sources during project construction would include traffic and heavy machinery used by agricultural practices, vehicles traveling on Forrester Road, and IID vehicles patrolling the Westside Main Canal.
The replacement bridge would require demolition of the existing bridge, removal of the roadway approaches, and excavation of the existing abutments, followed by regrading and construction of the replacement bridge, roadway approaches, and abutments. Heavy machinery, including dump trucks, excavators, concrete trucks, a backhoe, and pile drivers would be required during construction. Noise generated during construction would vary on a day-to-day basis, depending on the specific activities being undertaken at any given time. Construction activities would typically occur within the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday, per County Ordinance. The construction noise would be temporary and without any sensitive receptors in the vicinity (the nearest residence is approximately 1 mile from the project site). Traffic to and from the project site would not increase after construction of the replacement bridge. Operational noise

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

would not increase and would not exceed local noise standards. The impact would be less than significant.

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

b) Groundborne vibrations would be generated during project construction because of the use of construction equipment and the presence of truck traffic. Maximum vibration during construction would be from use of jackhammers, pile drivers, and excavators. Using pile driving to install the replacement bridge could cause substantial groundborne vibrations, estimated to between 0.508 and 0.644 PPV. This estimated PPV range for pile driving within 25 feet of the earthen canal would be potentially significant. Implementation of *Mitigation Measure GEO-1* would require evaluation of the existing and proposed slopes in the project site for stability, and construction plans to incorporate design measures dependent on evaluation, for the groundborne vibration caused from construction, including pile driving methods to limit the potential for slope destabilization.

The groundborne vibrations also could cause temporary groundborne noise levels in the immediate project vicinity. However, no sensitive receptors are in the immediate project vicinity who would hear the potential groundborne vibrations, as the closest residence is approximately 1 mile from the project site. In addition, construction would occur within the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday, per County Ordinance. Furthermore, use of the replacement bridge after construction would not generate any new vibrations. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure GEO-1* mentioned above.

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? ☐ ☐ ☐ ☒

c) The project site is not within 2 miles of a public airport, or within an existing or projected airport land use plan, or in the vicinity of a private airstrip. No impact is expected.

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)? ☐ ☐ ☐ ☒

a) The project would replace the existing bridge on Forrester Road and would not directly or indirectly induce growth in the area. The project would not construct new homes or businesses and would not provide an extension of existing roads or other infrastructure. Project construction is expected to last approximately 6 months, using a construction crew of 5 to 20 workers. Construction workers would be locally sourced and would not require new or additional housing. No impact is expected.

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

b) Residents in nearby towns, including Brawley, may experience temporary traffic delays because of the closure of Forrester Road near the replacement bridge site and associated detours. Access to the unpaved roads adjacent to the project site would be maintained during project construction. Landowners would have access to their parcels adjacent to the project site and would not require construction of replacement housing. The project would not displace any existing housing that would necessitate construction of replacement housing. No impact is expected.

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: ☐ ☒ ☐ ☐

	Potentially Significant Impact (PSI)	Potentially Significant Unless Mitigation Incorporated (PSUMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
1) Fire Protection?	☐	☒	☐	☐

1) During construction, traffic would be detoured from the project site. The traffic detour would be temporary and would result in an 11-minute increase in net travel times. The increase in travel time could affect response times from emergency personnel. Implementation of *Mitigation Measure PS-1* would require the County to inform emergency personnel of any temporary road closures at least 5 days in advance of the closure. Vehicle traffic during project operation would be similar to existing vehicle traffic over the Forrester Road Bridge. The project would not increase the demand for increased fire protection services. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure PS-1* mentioned above.

2) Police Protection?	☐	☒	☐	☐

2) The nearest police station is approximately 6.1 miles northeast of the project site in Brawley. Increase in travel times from traffic detours could affect police response times in the event of any emergency. Implementation of *Mitigation Measure PS-1* would require notification to emergency personnel, to inform them of any temporary road closings, at least 5 days in advance of the closure. The project would not include any new development that would increase the demand for police services. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure PS-1* mentioned above.

3) Schools?	☐	☐	☐	☒

3) No schools are in the project vicinity. The nearest schools are in Brawley, approximately 5.8 miles to the northeast. The project would replace the existing bridge along Forrester Road and would not involve any new development that would increase the demand for schools. No impact is expected.

4) Parks?	☐	☐	☐	☒

4) No parks are in the project vicinity. The project would not construct any parks or increase the demand for parks. The project would not require construction of any additional parks. No impact is expected.

5) Other Public Facilities?	☐	☐	☐	☒

5) No other public facilities are on the project site or within the project vicinity. No impact is expected.

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?	☐	☐	☐	☒

a) The project would replace the existing bridge and would not increase access to West Mesa recreational areas, west of the project site. The project would not provide any recreational opportunities. No impact is expected.

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?	☐	☐	☐	☒

b) The project would replace the existing bridge and would not include any recreational facilities. The project would not require construction or expansion of recreational facilities. No impact is expected.

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?	☐	☒	☐	☐

a) Forrester Road at the Westside Main Canal would be closed for the duration of the 6-month construction period. A regional and local detour are provided and described in Table 1 and Table 2, respectively.

Table 1 Regional Detour Route Miles

From Intersection	To Intersection	Miles Between Intersections

Forrester Rd. and W. Keystone Rd. (South of Forrester Rd. Bridge)	Forrester Rd. and W. Worthington Rd.	4.6
Forrester Rd. and W. Worthington Rd.	W. Worthington Rd. and Austin Rd.	1.5
W. Worthington Rd. and Austin Rd.	Austin Rd. and W. Keystone Rd.	4.5
Austin Rd. and W. Keystone Rd.	W. Keystone Rd. and SR86	1.4
W. Keystone Rd. and SR86	SR86 and Main Street (Brawley)	5.3
SR86 and Main Street (in Brawley)	SR86 and Center St. (in Westmorland)	6.8
SR86 and Center St. (in Westmorland)	Center St. (Forrester Rd.) and W. Carter Rd.	7.0
Total Miles		31.1

Table 2. Local Detour Route Miles

From Intersection	To Intersection	Miles Between Intersections
Forrester Rd. and W. Carter Rd. (North of Bridge)	Carter Rd. and Elder Rd.	3.3
Carter Rd. and Elder Rd.	Elder Rd. and SR86	3.1
Elder Rd. and SR86	SR86 and Main Street (in Brawley)	3.4
SR86 and Main Street (in Brawley)	SR86 and W. Keystone Rd.	5.3
SR86 and W. Keystone Rd	W. Keystone Rd. and Forrester Rd.	3.0
Total Miles		18.1

Detours will be properly signed with appropriate messaging, weight capacities, and route-aid finding information (Appendix H). Bridges along the regional detour would accommodate equivalent to that of the existing Forrester Road bridge. Access to private and active agricultural properties adjacent to the project site would be maintained during construction. Project construction would not limit access for IID maintenance personnel. The detours would provide adequate capacity with minimal round-trip delay. No public transportation or bicycle routes are along Forrester Road. Therefore, no substantial conflict with a local or regional traffic plan would occur. Implementation of *Mitigation Measure TRA-1* would require a traffic control plan be developed as part of the construction documents, to ensure that traffic flow and roadway safety are maintained during construction. Traffic through the project site would not increase after construction is completed. No conflict with a local or regional traffic plan would occur. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure TRA-1* mentioned above.

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

b) During project construction, miles traveled would temporarily increase because of the detour. Operation of the replacement bridge would not increase miles traveled. The impact would be less than significant impact.

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

c) Construction activities would result in the closure of Forrester Road Bridge and 0.2 mile of Forrester Road on each side of the bridge, which temporarily would interfere with the normal function of the roadway. Detours along adjacent roadways, including West Carter Road, West Keystone Road, and SR-86, would be provided. The closure of the roadway and detours would increase delays for motorists who normally use Forrester Road. Signage would be erected to direct motorists along the detour routes. Construction-related truck traffic would not pose a hazard to vehicles traveling along Forrester Road. The replacement bridge and roadway approaches would be designed to current design specifications and would be wider, with softer curves than the existing bridge and approaches. Consequently, the new bridge would be safer for vehicle traffic. The impact would be less than significant.

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

d) Forrester Road would be closed for approximately 0.2 mile in each direction approaching the bridge structure throughout project construction. The closure temporarily could interfere with emergency access. Nearby roads, including West Keystone Road to SR-86 would be used as a detour to maintain access on either side of the project site, but emergency response times may experience a delay of approximately 11 minutes because of the detour. Signage would be erected to direct motorists along

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the detour routes. The closure of the bridge would not be likely to result in increased emergency response times because of its location at the western edge of the valley and between communities with police, fire, and medical services. Brawley emergency services would be available north of the project site, and Imperial and El Centro services would be available to the south; however, the impact would be potentially significant if emergency response personnel are dispatched to locations served by Forrester Road without being aware of the bridge closure. Implementation of Mitigation Measure PS-1 would require notification of emergency providers before bridge closure, providing details on the closure and detours. The replacement bridge and approaches would be wider than the existing bridge and approaches, permitting easier emergency access across the Westside Main Canal. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure PS-1* mentioned above.

XVIII. ***TRIBAL CULTURAL RESOURCES***

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

(i) The field survey and records search identified one previously recorded cultural resource in the survey area, a segment of IMP-7834, the Westside Main Canal. The associated Sumac Lateral Canal also was identified in the survey area. Both of these resources are recommended to be considered eligible for the NRHP. No prehistoric archaeological resources have been identified within the project APE. No other listed or eligible resources are within 1 mile of the project site. These resources are of historic age and are not considered to be tribal resources. The project would not affect a known listed or eligible tribal cultural resource. Previously undiscovered tribal cultural resources could be discovered during excavation activities, and the impact would be potentially significant. Implementation of *Mitigation Measure CUL-1* would require a professional archaeologist to conduct cultural resources sensitivity training, including the requirement for cessation of work within a 50-foot radius in the event of a cultural resource discovery. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure CUL-1* mentioned above.

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

(ii) No known tribal cultural resources are on the project site or in the immediate area. Previously undiscovered tribal cultural resources could be discovered during excavation activities that the County could determine are significant to the tribes. The impact would be potentially significant if those resources are not evaluated and considered for their significance. Implementation of *Mitigation Measure CUL-1* would require a professional archaeologist to conduct cultural resources sensitivity training, including the requirement for cessation of work within a 50-foot radius in the event of a cultural resource discovery to determine its significance to any relevant tribes. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure CUL-1* mentioned above.

XIX. ***UTILITIES AND SERVICE SYSTEMS***

Would the project:

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

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

a) During project construction, water would be used for dust control and would be obtained from the Westside Main Canal, Sumac Canal, or another IID-operated source, through the IID encroachment permit process. Portable toilets would be transported to the project site for use by construction workers, and the waste would be trucked to an appropriate wastewater treatment facility. Water from dewatering operations or any water from construction activities would not flow directly into the Westside Main Canal. Appropriate dewatering operations—treatment of water using dewatering bags or tanks—would be used to prevent direct discharge of water into the Westside Main Canal.

The electrical and telecommunication utilities would be relocated temporarily during construction but would remain within the existing County ROW. After construction is completed, the alignment of the overhead lines would be re-aligned permanently with the County ROW.

During construction the Project has the potential to affect the underground fiber optic line located along the eastside of Forrester Road. Construction equipment may inadvertently damage or disrupt utility service associated with the fiber optic line if it is encountered during construction with heavy equipment. California Government Code Section 4216 requires the contractor to contact the Underground Service Alert regional notification center at least two days prior to excavation of any subsurface installation. The Underground Service Alert would notify regional utility providers that may have buried utilities within 1,000 feet of the proposed Project. Utility providers are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area. The Government Code also requires the contractor to probe and expose underground facilities by hand prior to using heavy equipment.

The project would not require relocation or construction of a new or expanded water system, wastewater treatment, stormwater drainage, or a natural gas line. The Project would be required to have an Underground Service Alert conducted to locate potential underground utilities within the Project footprint before ground disturbance would occur from construction. The project would temporarily relocate the electrical and telecommunication poles during construction and then would relocate them permanently post-construction within the County ROW. The impact 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? ☐ ☐ ☒ ☐

b) Water would be required for construction activities and would be obtained from the Westside Main Canal, Sumac Canal, or another IID-operated source, through the IID encroachment permit process. Sufficient water supplies would be available from the Westside Main Canal and Sumac Canal to serve project needs during construction. Water would not be required during project operation. The impact would be less than significant.

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

c) The project would not require a new or an expansion of wastewater treatment service. Portable toilets would be used by construction workers, and the waste would be trucked to an appropriate wastewater treatment facility. No waste treatment facilities would be required during project operation. The impact would be less than significant.

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? ☐ ☐ ☒ ☐

d) Project construction would involve structure demolition to remove the existing bridge as well as grading activities that would result in materials in need of disposal. The bridge demolition would result in approximately 3,220 square feet of material to be disposed, and the grading activities would result in approximately 3,700 cubic yards of additional material to be hauled to a solid waste facility, or other legal disposal method.

Several active and permitted landfills are in the project vicinity, including the Monofill Facility, Imperial Landfill, and Calexico Solid Waste. The solid waste facilities have sufficient remaining capacity to receive the solid waste generated from the project site. Project operation would not generate any solid waste. The impact would be less than significant.

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

e) The waste material that would be generated during project construction would be transported to an appropriate disposal facility, in accordance with federal, state, and local statutes and regulations related to solid waste. As discussed in Section 4.9, Hazards and Hazardous Materials, the ISA identified high levels of LBPs and chromium in some of the existing bridge materials, which are hazardous and therefore would need to be disposed appropriately. The impact would be potentially significant. Implementation of *Mitigation Measure HAZ-1* would require proper disposal of treated wood and LBPs. Use and maintenance of the replacement bridge would be similar in scope to the existing use and maintenance and would have no effect on landfills. Overall this item is checked as potentially significant unless mitigated, with the mitigation being the *Mitigation Measure HAZ-1* mentioned above.

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

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? ☐ ☐ ☐ ☒

a) The project site is in an LRA and is not within or near a State Responsibility Area (SRA). The project site is not within an area classified as a very high fire hazard severity zone. No impact would occur.

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

b) The project site is in an LRA and is not within or near an SRA. The project site is not within an area classified as a very high fire hazard severity zone. No impact would occur.

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

c) The project site is in an LRA and is not within or near an SRA. The project site is not in an area classified as a very high fire hazard severity zone. No impact would occur.

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? ☐ ☐ ☐ ☒

d) The project site is in an LRA and is not within or near an SRA. The project site is not in an area classified as a very high fire hazard severity zone. No impact would occur.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino,(1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

Revised 2009- CEQA
Revised 2011- ICPDS
Revised 2016 – ICPDS
Revised 2017 – ICPDS
Revised 2019 – ICPDS

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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?**	☐	☐	☐	☐
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.)**	☐	☐	☐	☐
c)	**Does the project have environmental effects, 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
- Jose Castaneda, Administrative Analyst III
- Imperial County Air Pollution Control District
- Department of Public Works
- Fire Department
- Ag Commissioner
- Environmental Health Services
- Sheriff's Office

B. OTHER AGENCIES/ORGANIZATIONS

- **Other Agencies/Organizations**
- **California Department of Fish and Wildlife**
- **California Department of Transportation**
- **Colorado River Regional Water Quality Control Board**
- **Imperial Irrigation District**

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

V. REFERENCES, INCLUDING APPENDICES

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55. **TECHNICAL STUDY – APPENDIX B DETAILED PROJECT DESCRIPTION; SEE ATTACHED**
56. **TECHNICAL STUDY – APPENDIX C AIR QUALITY AND GREENHOUSE GAS EMISSIONS DATA; SEE ATTACHED**
57. **TECHNICAL STUDY – APPENDIX D BIOLOGICAL RESOURCES TECHNICAL MEMORANDUM; SEE ATTACHED**
58. **TECHNICAL STUDY – APPENDIX E CULTURAL RESOURCES STUDIES; SEE ATTACHED**
59. **TECHNICAL STUDY – APPENDIX F INITIAL SITE ASSESSMENT; SEE ATTACHED**
60. **TECHNICAL STUDY – APPENDIX G WATER QUALITY ASSESSMENT REPORT; SEE ATTACHED**
61. **TECHNICAL STUDY – APPENDIX H TRAFFIC TECHNICAL MEMORANDUM; SEE ATTACHED**

TECHNICAL STUDIES APPENDIX

- **Technical Study Appendix A – Proposed MMRP**
- **Technical Study Appendix B – Details Project Description**
- **Technical Study Appendix C – Air Quality and Greenhouse Gas Emissions Data**
- **Technical Study Appendix D – Biological Resources Technical Memorandum**
- **Technical Study Appendix E – Cultural Resource Studies**
- **Technical Study Appendix F – Initial Site Assessment**
- **Technical Study Appendix G – Water Quality Assessment Report**
- **Technical Study Appendix H – Traffic Technical Memorandum**

VI. NEGATIVE DECLARATION – County of Imperial

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.

Project Name: Forrester Road over Westside Main Canal Bridge Replacement Project, County Project Number 6320; Federal Project Number BRLS-5958(094); Initial Study #22-0025

Project Applicant: Imperial County Public Works Department (PWD), 155 South 11th Street, El Centro, CA 92243

Project Location: The project site is located in Imperial County within the western end of the U.S. Geological Survey 7.5-minute, 1:24,000-scale Brawley Quadrangle and the northwest quarter of Section 22 Township 14 S Range 13 E. The existing bridge is located on Forrester Road in Imperial County, approximately 10 miles north of Interstate 8 and 5 miles southwest of Brawley, California. Forrester Road crosses the Westside Main Canal and the Sumac Canal, approximately 1,330 feet south of the intersection of Forrester Road with Imler Road.

Description of Project: The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 55-mile-per-hour design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the Westside Main Canal and the bridge. The grade of the roadway approaches approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements.

VII. FINDINGS

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

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

☑ The Initial Study identifies potentially significant effects but:

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

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

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

A MITIGATED NEGATIVE DECLARATION will be prepared.

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

NOTICE

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

7-28-2022 _____
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.

_____ 7/28/22
Applicant Signature Date

EEC ORIGINAL PKG

SECTION 4

VIII. RESPONSE TO COMMENTS

(ATTACH DOCUMENTS, IF ANY, HERE)

IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP)

(See Attachment "A")

TECHNICAL STUDY - APPENDIX A

Proposed MMRP

INTRODUCTION

This document is the Mitigation, Monitoring, and Reporting Program (MMRP) for the Forrester Road over Westside Main Canal Bridge Replacement project (proposed project). This MMRP has been prepared pursuant to Section 21081.6 of the California Public Resources Code, which requires public agencies to "adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." An MMRP is required for the proposed project because the Mitigated Negative Declaration (MND) identified significant adverse impacts and mitigation measures have been identified to address these impacts. The numbering of the individual mitigation measures follows the numbering sequence as found in the MND. All revisions to mitigation measures that were necessary, as a result of incorporating staff-initiated revisions have been incorporated into this MMRP.

MITIGATION, MONITORING, AND REPORTING PROGRAM

The MMRP, as outlined in the following table, described the monitoring responsibility, mitigation timing, mitigation performance standards, and compliance verification responsibility for all mitigation measures identified in the MND. The Imperial County Public Works Department (County) will be the primary agency responsible for monitoring implementation of the mitigation measures. The County may choose to require the construction contractor to implement specific mitigation measures prior to and/or during construction.

The MMRP is presented in tabular form on the following pages. The components of the MMRP are described briefly below:

Mitigation Measures: The mitigation measures are taken from the MND, in the same order that they appear.

Monitoring Responsibility: Identifies which agency is responsible for mitigation monitoring.

Timing and Performance Standards: Identifies at which stage of the project, mitigation must be completed. Performance standards are identified that must occur during the specified stage of project implementation to determine that the objectives of the mitigation are met.

Compliance Verification: The agency responsible for monitoring will sign and date after verifying compliance with the mitigation.

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
Biological Resources			
Mitigation Measure BIO-1: Pre-Construction Burrowing Owl Surveys The County shall conduct two pre-construction burrowing owl surveys (14 days and 24 hours prior to vegetation removal and/or initial grading activities). Pre-construction surveys shall be conducted within the immediate project site and surrounding 150-meter survey area. Surveys shall occur during favorable weather conditions and either during early morning hours (one hour before sunrise until two hours after sunrise) or during late afternoon hours (two hours before sunset until one hour after sunset). After the first pre-construction survey, a report shall be submitted for CDFW review addressing survey methods, transect widths, duration, conditions, results, and any mitigation recommendations. Following the 24-hour pre-construction survey, a memo report shall be prepared for CDFW review addressing any additional required mitigation defined in this measure, which would include: • Preparation and implementation of a Burrowing Owl Mitigation Plan, including but not limited to passive relocation procedures, "shelter in place" procedures, noise attenuation barriers, visual barriers, biological monitoring during construction, or other methods to avoid and minimize indirect and direct impacts to burrowing owls. • Setbacks as recommended by CDFW (2012) and implemented as defined in the table below. Project construction activities will be defined as low, medium, and high disturbance activities in the Burrowing Owl Mitigation Plan.	County/ Contractor	Prior to vegetation removal or ground-disturbing activities	

Location	Time of Year	Buffer Distance (meters) Based on Level of Disturbance		
		Low	Medium	High
Nesting Sites	April 1 – Aug 15	200 m	500 m	500 m
Nesting Sites	Aug 16 – Oct 15	200 m	200 m	500 m
Nesting Sites	Oct 16 – Mar 31	50 m	100 m	500 m

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
Mitigation Measure BIO-2: Nest Avoidance Bridge removal, vegetation removal, and ground-disturbing activities should avoid the nesting bird season (generally between January 1 and August 31) to the extent practical to limit the potential need for avoidance measures. Prior to the onset of the nesting season (January 1), the County shall remove old and partially completed swallow nests from the existing bridge using hand tools or high-pressure water. A qualified biologist shall monitor swallow behavior at the existing bridge immediately prior to removal activities to ensure that none of the old swallow nests are active. Disturbance or removal of active nests shall not be conducted at any time. Following the initial removal of old swallow nests, the County shall inspect the bridge weekly and remove new and partially constructed swallow nests before they become active. A pre-construction nesting bird survey shall be conducted for MBTA- and CDFW-protected nesting birds within 500 feet of areas proposed for bridge removal, vegetation removal and/or initial grading activities regardless of time of year to ensure compliance with all applicable laws pertaining to nesting birds and birds of prey. The survey shall be conducted by a qualified biologist within three days prior to vegetation removal and/or initial grading activities. If active nests are observed, the biologist shall implement non-disturbance buffers (minimum 300 feet for passerines and 500 feet for raptors) and shall monitor active nest(s) weekly during construction activities to ensure nesting behavior is not being indirectly affected by construction-related noise levels. If the biologist determines that nesting behavior is being adversely affected, a noise mitigation program (e.g., staggered work schedules, altered work locations, noise abatement barriers) shall be implemented, in consultation with the CDFW, to allow such activities to proceed. Once the biologist has determined the young have fledged and have not returned to the nest(s), construction activities may proceed.	County/ Contractor	Prior to vegetation removal or ground-disturbing activities	
Cultural Resources			
Mitigation Measure CUL-1: Cultural Resources Sensitivity Training and Inadvertent Discovery A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall	Imperial County Public Works Department	**Prior to site preparation and/or construction** Cultural resources sensitivity training will be implemented	

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a potentially significant historic and/or prehistoric archaeological resource. In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA) and/or, (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area. If the resource meets the criteria for either a historical or unique archaeological resource, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA) and/or (2) a unique archaeological resource as defined by CEQA. If the resource meets the criteria for either a historical or unique archaeological resource, work shall remain halted within 50 feet of the area of the find and the qualified cultural resource specialist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the County.		**During construction** An Alert Sheet will be posted in staging areas; Ground-disturbing work will halt within 50 feet of an uncovered archaeological resource and a qualified cultural resource specialist/ archaeologist will evaluate the resource	
Mitigation Measure CUL-2: Human Remains If human remains are encountered during construction, ground disturbing work shall halt within 50 feet of any area where human remains or suspected human remains are encountered in compliance with California law (Health and Safety	Imperial County Public Works Department	**During construction** Ground-disturbing work will halt within 50 feet of uncovered human	

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
Code section 7050.5; PRC sections 5097.94, 5097.98, and 5097.99). The County shall contact the Medical Examiner at the county coroner's office. The Medical Examiner has two (2) working days to examine the remains after being notified by the County. When the remains are determined to be Native American, the Medical Examiner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall immediately notify the identified Most Likely Descendant (MLD), and the MLD has 48 hours, from the time that access to the project site is granted, to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the MLD does not make recommendations within 24 hours, the area of the property must be secured from further disturbance. If there are disputes between the landowner and the MLD, the NAHC shall mediate the dispute to attempt to find a resolution. If mediation fails to provide measures acceptable to the landowner, the landowner or his/her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.		remains or suspected human remains; The Medical Examiner will examine the remains; If the remains are determined to be Native American, the Medical Examiner will notify the NAHC who will notify the MLD to determine respectful treatment or disposition of the remains and grave goods	
Geology and Soils			
Mitigation Measure GEO-1: Slope Stability Construction slopes and existing sloped banks along IID water conveyance structures impacted by construction activities (e.g., temporary access, cut and fill, pile driving) shall be evaluated for stability by a geotechnical or civil engineer. Construction slopes and grading plans shall be designed to limit the potential for slope instability during construction or shall include methods to stabilize slopes. Construction activities likely to result in slope instability shall be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.	Imperial County Public Works Department	**Prior to construction** Slopes will be evaluated by a geotechnical or civil engineer and design recommendations incorporated into site plans and grading plans **During construction** After heavy rain, activities that could destabilize slopes will be suspended	
Mitigation Measure GEO-2: WEAP Training for Paleontological Resources Inadvertent Discovery A professional paleontologist shall provide sensitivity training to supervisory staff to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall	Imperial County Public Works Department	**Prior to site preparation and/or construction** Paleontological resources sensitivity training will be	

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
be conducted as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (1995), to recognize fossil materials in the event that any are uncovered during construction. In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is "unique"[1] under CEQA, Appendix G, part V. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation in-place is not feasible and avoidance is not possible, the fossils shall be		implemented **During construction** Ground-disturbing work will halt within 50 feet of an uncovered paleontological resource and a qualified cultural resource specialist/ archaeologist will inspect the resource	

1 A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally;
- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic,
- paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution (County of San Diego. 2009.
- Guidelines for Determining Significance Paleontological Resources. January 15, 2009).

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.			
Hazards and Hazardous Materials			
Mitigation Measure HAZ-1: Debris Collection and Hazardous Materials Disposal Measure Lead and Chromium: the existing road paint shall be handled and disposed of as a lead-based paint and characterized for disposal once drummed in the field.	Imperial County Public Works Department	**During construction** Existing road paint will be handled and disposed of as a lead-based paint.	
Mitigation Measure HAZ-2: Debris Collection and Containment Program Imperial County shall ensure that a Debris Collection and Containment Program is developed and implemented during project construction. The contractor shall be required to prepare and submit drawings to the County of the containment systems to be used. The containment system may include the following containment procedure or similar procedure that adequately prevents accidental release of lead paint into the environment: • Local containment shall be installed prior to removing the bridge for the purpose of containing all paint flakes. Containment shall consist of using tarps to enclose the sides and bottoms of the existing trusses within 10 feet of the support locations and bridge pick-up points (i.e., locations that are used to connect equipment for the purpose of lifting the bridge). • Where the existing paint is not flaking, the contractor shall have the option of applying a clear coat of paint instead of enclosing the trusses with tarps. • Following installation of containment tarps and/or clear coat of paint, the existing bridge shall be lifted in one piece from its supports at the abutments and interior pier.	Imperial County Public Works Department & the contractor	**Prior to construction** A Debris Collection and Containment Program will be developed and submitted to the County for Approval. **During construction** The Debris Collection and Containment Program measures will be implemented.	

Mitigation Measure	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification (Date and Initials)
Public Services			
Mitigation Measure PS-1: Emergency Provider Notification Local emergency service providers (i.e., fire departments, police departments, ambulance, and paramedic services) shall be notified of the construction schedule and potential for delays prior to the start of construction. Emergency service providers shall be notified of any temporary closures at least 5 days in advance of the closures.	Imperial County Public Works Department	**Prior to Construction** Notify emergency service providers of construction schedule **During Construction** Notify emergency service providers of temporary closures	
Transportation			
Mitigation Measure TRA-1: Traffic Control Plan A construction Traffic Management Plan shall be developed by the contractor and approved prior to construction and implemented by Imperial County Public Works Department. The plan would ensure that traffic flow and roadway safety are maintained in the project area during construction. This Traffic Management Plan would include provisions for adequate notices, sign-postings, detours, phased construction, provisions for IID personnel access, and the permitted hours of construction activities. The Traffic Management Plan would be developed so that construction would not interfere with any emergency response or evacuation plans (see PS-1).	Imperial County Public Works Department	**Prior to Construction** Approve plan prior to construction **During Construction** Monitor plan implementation	

TECHNICAL STUDY - APPENDIX B

Detailed Project Description

Detailed Project Description

Introduction

Project Purpose and Objectives

The Imperial County Public Works Department (County) proposes to implement the Forrester Road over Westside Main Canal Bridge Replacement project (proposed project), which would include the demolition of the existing County Bridge No. 58C-0014 over the Westside Main Canal and culvert under the approach roadway for the Sumac Canal, and the construction of a replacement bridge and culvert, with the roadway on the same alignment.

The purpose of the proposed project is to replace the existing, structurally deficient bridge with a modern bridge that would satisfy current design and seismic standards. Forrester Road currently carries an Average Daily Traffic (ADT) of 3,808 vehicles (Imperial County (b), 2022). Using a standard 2 percent growth rate, the County estimates an ADT of 3,962 during construction in 2024 and a 20-year design ADT of 5,887 (Imperial County (a), 2022). The existing bridge does not meet minimum clear width criteria for American Association of State Highway and Transportation Officials (AASHTO) or California Department of Transportation (Caltrans) standards based on the current and projected future ADT. The bridge railing, transitions, approach railing, and terminal sections also do not meet current design standards. In addition, the existing bridge has several design features that are seismically vulnerable and would have a questionable safety performance during an earthquake.

Embankment erosion has been documented for the existing bridge since 1980. Loss of abutment fills has exposed the abutment piles and undermined the roadway fill behind the abutments. The bridge railings and approach guardrails on both sides of the bridge have also experienced damage.

The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards. Rehabilitation and retrofitting of the existing bridge were evaluated as options and were deemed not cost effective compared to complete replacement.

Project Funding and Jurisdiction

The proposed project would be funded through the Federal Highway Bridge Program (HBP). This program is funded by the Federal Highway Administration (FHWA). The California Department of Transportation (Caltrans) will be the Federal Liaison for administering project funds and providing project oversight. All aspects of the proposed project would meet state and

Federal requirements. Caltrans would approve the National Environmental Policy Act (NEPA) document under current delegation authority from FHWA.

The County is the lead agency under the California Environmental Quality Act (CEQA), with the authority to authorize construction of the project after federal approvals and funding by FHWA. The County would obtain an encroachment permit from the Imperial Irrigation District (IID) for work within the IID right-of-way (ROW). The appropriate level of review under NEPA would be a Categorical Exclusion (CE). This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared pursuant to CEQA.

Project Location

The project site is located in Imperial County within the western end of the U.S. Geologic Survey (USGS) 7.5-minute, 1:24,000-scale Brawley Quadrangle and the northwest quarter of Section 22 Township 14 S Range 13 E.

The existing bridge is located on Forrester Road in Imperial County, approximately 10 miles north of Interstate 8 (I-8) and 5 miles southwest of Brawley, California, as shown in Figure 1. The bridge spans the Westside Main Canal, approximately 1,330 feet south of the intersection of Forrester Road with Imler Road. The southern approach to Forrester Road Bridge crosses the Sumac Canal. The project site is surrounded by private agricultural fields. The elevation of the project site is approximately 70 feet below sea level.

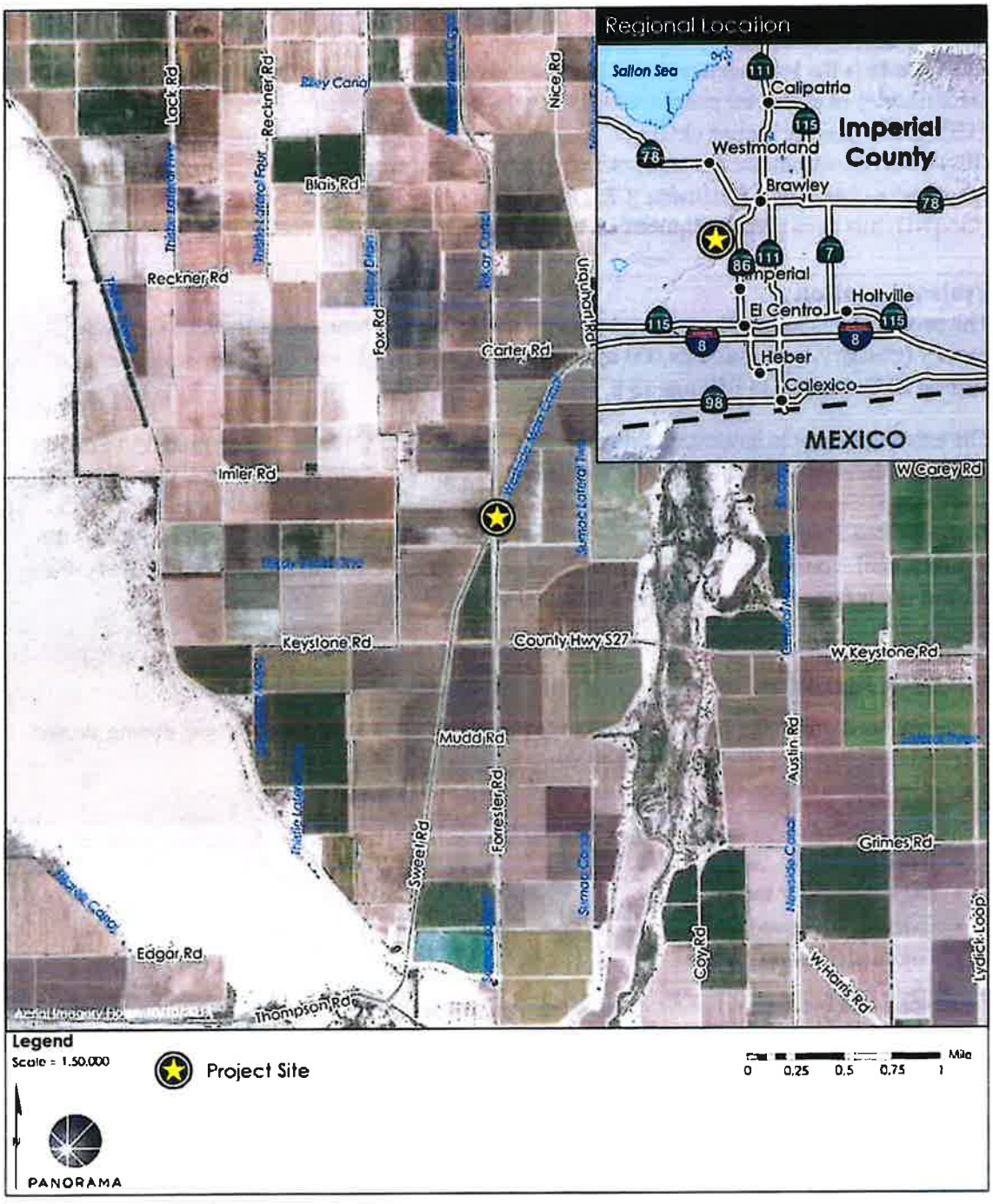
Existing Facilities

There are six distinct site features within the project site that would be affected during project construction. Existing site features include:

- Forrester Road
- Existing Forrester Road Bridge (58C-0014)
- Existing Westside Main Canal
- Existing power facilities
- Existing irrigation facilities (i.e., Sumac Canal)
- Existing canal access roads

Forrester Road is classified as a principal arterial roadway that supports a high volume of interstate and intercountry (Mexico/USA) truck traffic. The road is approximately 30 feet wide on flat terrain that traverses primarily through agricultural land. The existing Forrester Road Bridge is a 4-span steel stringer bridge with a reinforced concrete deck. The bridge is approximately 28 feet wide by 115 feet long, and is supported by reinforced concrete pile cap bents founded on cast-in-steel shell pile extensions. The existing bridge is heavily skewed (55 degrees) due to the alignment of Forrester Road to the Westside Main Canal. Photos of the existing bridge and surroundings are shown in Figure 2.

Figure 1 Project Vicinity



Source: (ESRI, 2019; Quincy Engineering, 2019)

Figure 2 Project Site Photos

Source: (Panorama Environmental, Inc., 2019)

IID owns and operates the irrigation and power facilities located within and adjacent to the project site. The Westside Main Canal is a controlled flow canal and provides water to the City of Westmorland. The Westside Main Canal and several smaller irrigation structures that occur within the project limits deliver a significant amount of irrigation water to local agriculture. Field distribution canals flank Forrester Road and the Westside Main Canal. A primary distribution canal, Sumac Canal, crosses under Forrester Road on the south end of the bridge and then crosses under Westside Main Canal in an inverted siphon on the east side of the Forrester Road Bridge. Sumac Canal has a spill drain that connects to the Westside Main Canal prior to the siphon entrance on the southeast side of the bridge.

An overhead IID power distribution line located west of and parallel to Forrester Road on both sides of the Westside Main Canal crosses over Forrester Road just north of the existing bridge. In addition, distribution lines occur on the north end of the bridge to supply an agricultural pump that serves the field just west of the existing bridge.

Multiple unpaved access roads border both the irrigation canals and agricultural fields surrounding the site. IID maintenance vehicles and the agricultural equipment routinely use these access roads.

Project Description

Overview

The proposed project involves demolishing the existing bridge and constructing a replacement bridge over the Westside Main Canal. This section provides a detailed description of the proposed project, including the design features of the bridge and roadway alignment and the construction methods. Figure 3 shows the proposed project elements, including the proposed replacement bridge and construction staging area within the project site. Table 1 identifies the existing facilities that conflict with the proposed bridge design and summarizes the temporary and permanent modifications that would be necessary.

Table 1 Treatment of Existing Facilities

Existing Facility	Modifications
Permanent Modifications	
Forrester Road Bridge	A wider, elevated, single span bridge would be constructed to replace the existing deficient bridge
Forrester Road	Approximately 1,700 linear feet of Forrester Road would be reconstructed to match the new bridge elevation and width
Irrigation Facilities	A new culvert to convey the Sumac Canal under Forrester Road would be constructed south of the existing culvert. The existing culvert would be demolished and removed after irrigation water supply is transferred to the new culvert.

Canal Access Roads	Localized detours would be necessary to keep vehicles out of the construction site. New spur roads connecting Forrester Road to the existing IID access roads would be constructed. IID access would be maintained at all times throughout construction.
Temporary Modifications	
Westside Main Canal	Localized water containment would be installed to facilitate bridge demolition and construction
Power Facilities	Relocation during construction

Source: (Quincy Engineering, 2020)

Project Design

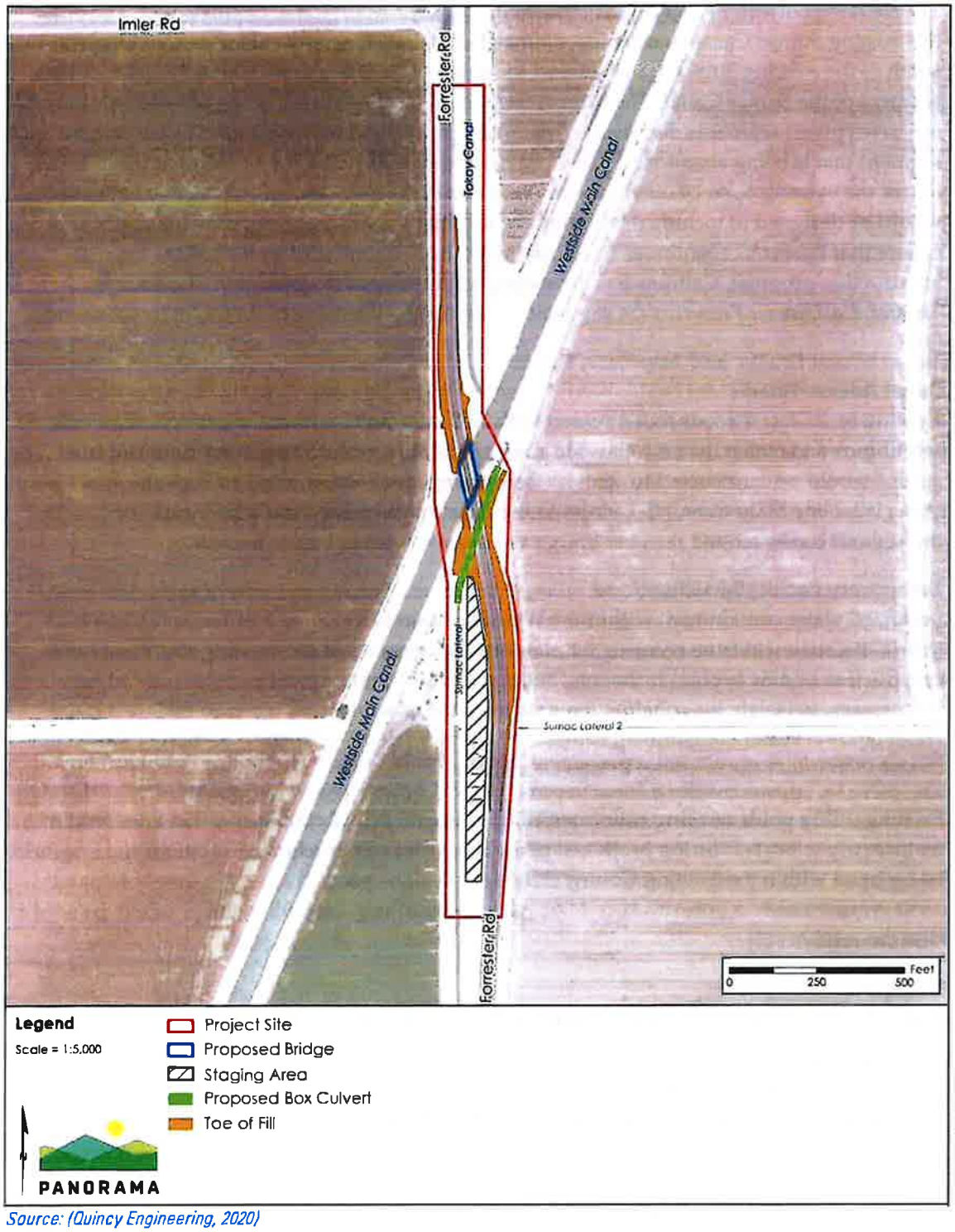
Replacement Bridge and Approach Roads

The proposed replacement bridge would span the Westside Main Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 55-mile-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. Rock slope protection or permanent sheet piles would be installed on the canal banks around the new bridge abutments to protect against scour.

The replacement bridge barriers and railings would be designed to conform to the full-scale crash-test criteria established under the Manual for Assessing Safety Hardware (MASH) criteria. Railings would be constructed of reinforced concrete or weathering steel or an earth tone paint would be applied to the steel bridge railing to reduce potential glare and blend with the surrounding landscape (Quincy Engineering, 2020).

The elevation of the proposed replacement bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches approximately 900 feet on the south end of the bridge and 800 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Approximately 4,000 cubic yards of imported fill material would be used to raise the road profile.

Figure 3 Project Elements



Source: (Quincy Engineering, 2020)

Irrigation Facilities

The elevated Forrester Road segment south of Westside Main Canal conflicts with a segment of the existing Sumac Canal. A new approximately 411-foot-long box culvert would be constructed south of the existing Sumac Canal culvert to replace an existing approximately 250-foot-long segment of the Sumac Canal. The box culvert would be constructed using pre-cast reinforced concrete culvert segments designed to match the profile and materials used in the original canal segment that is being abandoned. New pre-cast headwalls would be installed at the location where the existing open channel Sumac Canal meets the new box culvert. New headwalls would be designed to include date stamps to indicate the new segment of the Sumac Canal. To ensure that the Project continues to comply with the Rehabilitation Standards as the design and construction progress, Caltrans has developed a Secretary of the Interior's *Standards for the Treatment of Historic Properties* (SOIS) Action Plan for the Westside Main Canal (see Appendix D).

Canal Access Roads

Existing canal access roads that intersect with Forrester Road within the project area would be reconfigured to match the new elevated road grade of Forrester Road. New unpaved road aprons would be constructed to connect the existing canal access roads to Forrester Road south of the Westside Main Canal. IID access to the canal access roads would be maintained throughout construction.

Temporary Facility Modifications

Localized water containment within the Westside Main Canal would be necessary to avoid debris and sediment from entering the canal during removal of the existing abutments and construction of new bridge abutments. Sheet pile water containment systems may be installed, if necessary, to isolate the construction area from the flowing canal water to maintain canal water quality. Water containment is discussed in more detail in the next section of the Project Description under the heading: Bridge Demolition.

Existing utility poles carrying collocated IID power and AT&T communication lines would be temporarily relocated during project construction. Once construction is complete, the lines will be replaced within the existing County ROW.

Construction

Overview

Bridge construction would include the following six phases:

1. Site Preparation
2. Staging Area Preparation
3. Utility Relocation and Irrigation Facility Modification
4. Bridge Demolition/Removal
5. Roadway Approach Grading
6. Installation of New Bridge

Each construction phase is described in detail below. Table 2 identifies the footprint of each project element and the area of ground disturbance associated with each element.

Table 2 Project Footprint and Ground Disturbance Areas

Project Component	Footprint of Permanent Project Elements (Acres)	Area of Ground Disturbance (Acres)	
		Temporary	Permanent
Bridge [a]	0.14	--	0.04
Approach Roads (Paved Area)	1.4	--	1.4
Imported Fill for Roadside Embankments and IID Canal Access Road Spurs [b]	1.2	--	1.2
Sumac Canal Culvert [c]	0.184 (411 linear feet)	--	0.08 (166 linear feet)
Staging Area [d]	1.0	1.0	--

[a] The existing and new bridge decks are not included in ground disturbance acreage. Permanent impact is the footprint of bridge abutments and rock slope protection.

[b] IID canal access road spurs would be constructed with imported fill material. The roadside embankments and IID canal access road spurs are considered permanent project elements but would not be paved and would not increase impervious surfaces within the project area.

[c] Approximately 0.104 acre (245 linear feet) of the Sumac Canal footprint overlaps with the imported fill footprint. The culvert's permanent impact area represents the portion of the Sumac Canal culvert that extends beyond the toe of imported fill.

[d] The staging area would not require grading or surface improvements; however, soils may be stockpiled in the staging areas.

Site Preparation

Limited vegetation is found in the area and is mostly in the channel banks themselves. Vegetation would be removed during site preparation to accommodate the abutment excavation and potentially the placement of rock slope protection (RSP) or permanent sheet piles. No trees or significant riparian vegetation are located in the construction area.

Staging Area Preparation

Staging areas would be used to store project materials and equipment throughout construction. Temporary fencing would be installed surrounding staging areas at construction initiation. A large storage container in the staging area would store construction materials during non-work hours. Staging areas were chosen to ensure that inspection and maintenance of IID utilities would not be inhibited.

Utility Relocation and Irrigation Facility Modification

Collocated overhead power and telephone lines are located parallel to Forrester Road on both sides of the Westside Main Canal, and distribution and communication lines are located on the north end of the bridge. A portion of these utility lines near the project site would need to be relocated to create a safe work buffer for construction activities. The extent and location of the relocated utility lines would depend on the final bridge and roadway designs selected. DigAlert would be contacted at least 2 full working days before ground disturbance, as required by law.

The existing alignment of the Sumac Canal conflicts with the design for the new Forrester Road Bridge. A new 411-foot-long box culvert would be constructed to realign the Sumac Canal under Forrester Road. Construction of the new Sumac Canal segment would include use of reinforced concrete and pre-cast headwalls. Approximately 250 linear feet of the existing Sumac Canal under Forrester Road would be demolished. The existing concrete canal lining and box culvert would be removed and transported to an appropriate disposal facility. The abandoned segment of the Sumac Canal alignment would be filled with imported clean fill material.

The realigned Sumac Canal segment would be constructed in a way to minimize service outages on the canal. Construction would be sequenced to allow the existing Sumac Canal to operate normally during construction of the new, realigned portion of the canal. The Sumac Canal would be removed from operation for approximately 3 to 5 days during construction of the new headwalls to connect the realigned segment of the canal to the existing canal. The Sumac Canal would be placed in service following connection to the realigned segment. The Sumac Canal would operate normally during construction of the Forrester Road Bridge.

Bridge Demolition/Removal

The existing bridge would be demolished and removed prior to construction of the replacement bridge. Demolition activities would be designed to minimize impacts to the canals, and may include suspension of a net under the bridge deck during removal to prevent discharge into the canals during demolition. Removal of the existing bridge piers pile extension supports will consist of breaking them off at or just under the canal bottom surface level. The piles are lightly reinforced and lateral load imposed by an excavator will fracture the piles near or below the canal bottom. Once the piles are broken off, the excavator, with a chain, will lift the pile out of the canal and they will be transported to an appropriate disposal facility. Using a temporary sheet pile containment system and removing the temporary sheet piles will result in a larger amount of "dirty water" than breaking them off without containment. The abutment piles, most of which are exposed due to canal bank erosion, will be removed in a similar manner. Removal of the abutment concrete diaphragm will require localized water containment within the canal. Sheet piles would be installed, only to the extent to contain the concrete rubble and water within the removal area. Installation of piles would occur during daytime hours. Excavation for the abutments would be contained within the sheet piles. Dewatering within the sheet piles would likely be required only as needed to retrieve the concrete rubble. It may be possible to remove the concrete diaphragm in one unit such that rubble containment is not an issue. Appropriate dewatering operations, treatment of water using dewatering bags or tanks, would

be used to prevent direct discharge of water into the canal. The existing piles would be removed from the canal using a backhoe/excavator and chain.

All equipment required for removal of the existing bridge deck would be staged on and operate from the banks of the canal and not in the canal.

Roadway Approach Grading

Fill material would be imported to create the grade for the roadway approaches to align with the higher elevation of the proposed bridge. Fill slopes would be constructed at an approximate 2:1 (horizontal: vertical) slope. The alignment for the roadway would be graded using bulldozers, scrapers, and/or motor graders, or other appropriate equipment.

Installation of New Bridge

Excavation for the installation of the abutments and pile caps would occur and, depending on the method of dewatering (e.g., seal course, water pumping), steel piles may be driven into the canal banks. Pile driving would occur during daytime hours. The pile cap would then be poured, using concrete delivered to the site in ready mix trucks. Following construction of the pile cap, the abutments would be formed and poured.

Placement of the steel girders would require one or two cranes, staged off the existing road alignment on one or both sides of the Westside Main Canal. Multiple girders would be spliced together to construct a full-span girder before lifting the complete girder into position. Girders would then be temporarily braced in position on their bearing plates. The concrete end diaphragm would be poured first and allowed to cure. Permanent metal forms would then be placed and connected to the girders in each bay. Bar reinforcement would be placed within the deck forms and the concrete deck would be cast. After the deck cures, bridge barriers and approach railings would be installed. After final paving and striping of the bridge and approach roads, the bridge would be opened to public traffic.

Disposal and Borrow Sites

Waste materials from the demolition of the existing bridge structure and abutments would include concrete and steel. Additional waste materials would be generated during construction of the replacement bridge and roadway approaches. All waste would be disposed of at appropriately-permitted disposal sites in accordance with all applicable Imperial County, State, and federal regulations for construction and demolition waste.

Construction debris containing hazardous materials would be disposed of properly at a waste disposal facility authorized to accept the waste. Three active and permitted landfills occur within 25 miles of the project site (CalRecycle, 2019). Each of the potential disposal sites has capacity to accept construction waste. Treated wood waste would be disposed of as managed waste in accordance with California Department of Toxic Substances Control.

Approximately 4,000 cubic yards of imported fill material will be required to construct the road and bridge at the proposed elevation, which would be approximately 3.5 feet higher than the

current bridge elevation. Clean fill material would be purchased commercially and imported from a local aggregate provider.

Water Consumption

The proposed project would require water for dust control during ground disturbing and earth compaction activities. Water would likely be obtained from the Westside Main Canal, Sumac Canal, or another IID-operated source, through the IID encroachment permit process.

Traffic Control and Detour

Traffic on Forrester Road would be detoured to nearby arterial roads for approximately 6 months. Regional and local traffic would be detoured around the project site using existing roads (Figure 4). Regional traffic would use a detour between Westmorland and Forrester Road using State Route 86 (SR86) and West Keystone Road ("Regional Detour"). Local traffic would be detoured on West Carter Road, SR86, and West Keystone Road ("Local Detour"). Detour signs would be erected to direct traffic along the detour routes. Construction would allow access to adjacent parcels and IID canal access roads during all construction activities.

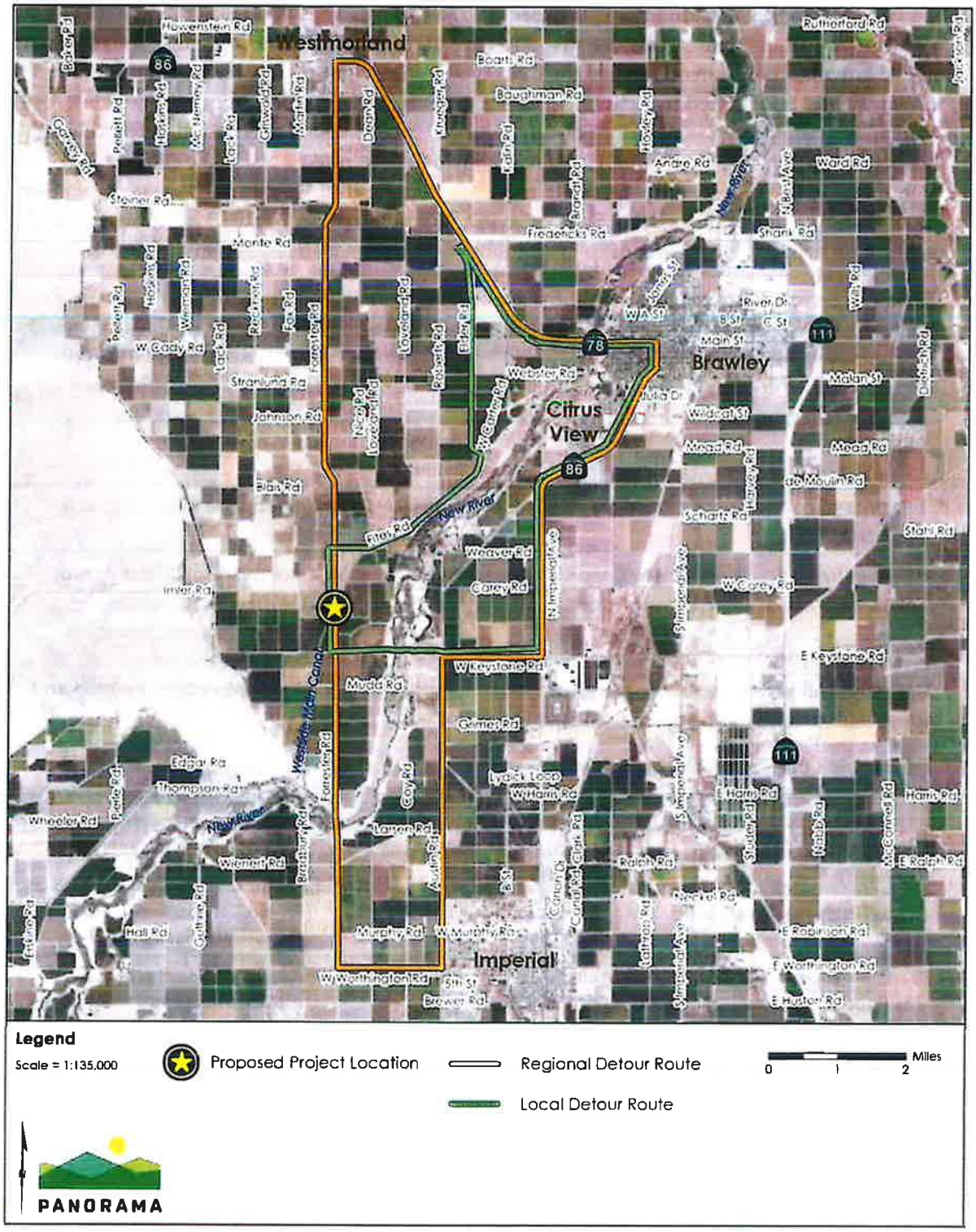
Construction Equipment and Schedule

The type of equipment required for the proposed project would include the following, at a minimum:

- Excavators
- Dozers
- Cranes
- Water truck
- Flatbed trucks
- Jackhammers
- Hot-mix asphalt spreader and roller
- Dump trucks
- Sweepers
- Personal trucks and vehicles
- Motor grader
- Miscellaneous power/hand tools
- Concrete trucks and pump
- Pile driving hammers
- Pile driving equipment
- Front-end loader
- Grade-all

Construction activities would begin during 2024 and last 4 months. Construction within the Westside Main Canal would be scheduled to occur during periods of low flow (mid-December to early January), to the extent practicable. Construction activities are generally not anticipated to occur at night, but some discrete activities, such as temperature sensitive concrete curing, could occur at night. Any lighting used at night would be shielded and directed downward in the work areas.

Figure 4 **Construction Detour Routes**



Right-of-Way Acquisition and Easements

Construction of the proposed Forrester Road Bridge replacement would likely require new right-of-way acquisitions, rights of entry, and temporary construction easements. The new road embankments would extend beyond the County's existing right-of-way limits. Permanent right-of-way would be acquired to include the new road embankments to the toe of the embankment slope. Temporary construction right of entry and easements would be required for parcels that border the project site. The Sumac Canal realignment would occur outside the existing IID right-of-way. The County and IID would reestablish the right-of-way through research of prior or secondary right for the existing Sumac Canal and Forrester Road. Table 3 identifies the land acquisition needs. Figure 5 identifies the locations of the parcels in relation to the project site.

Table 3 Temporary and Permanent Land Acquisition

Parcel	Acquisition Needs
040-170-004	Temporary Construction Easement Permanent Right-of-Way
040-170-008	Temporary Construction Easement Permanent Right-of-Way
040-170-009	Temporary Construction Easement Permanent Right-of-Way

Source: (Quincy Engineering, 2020)

Permitting

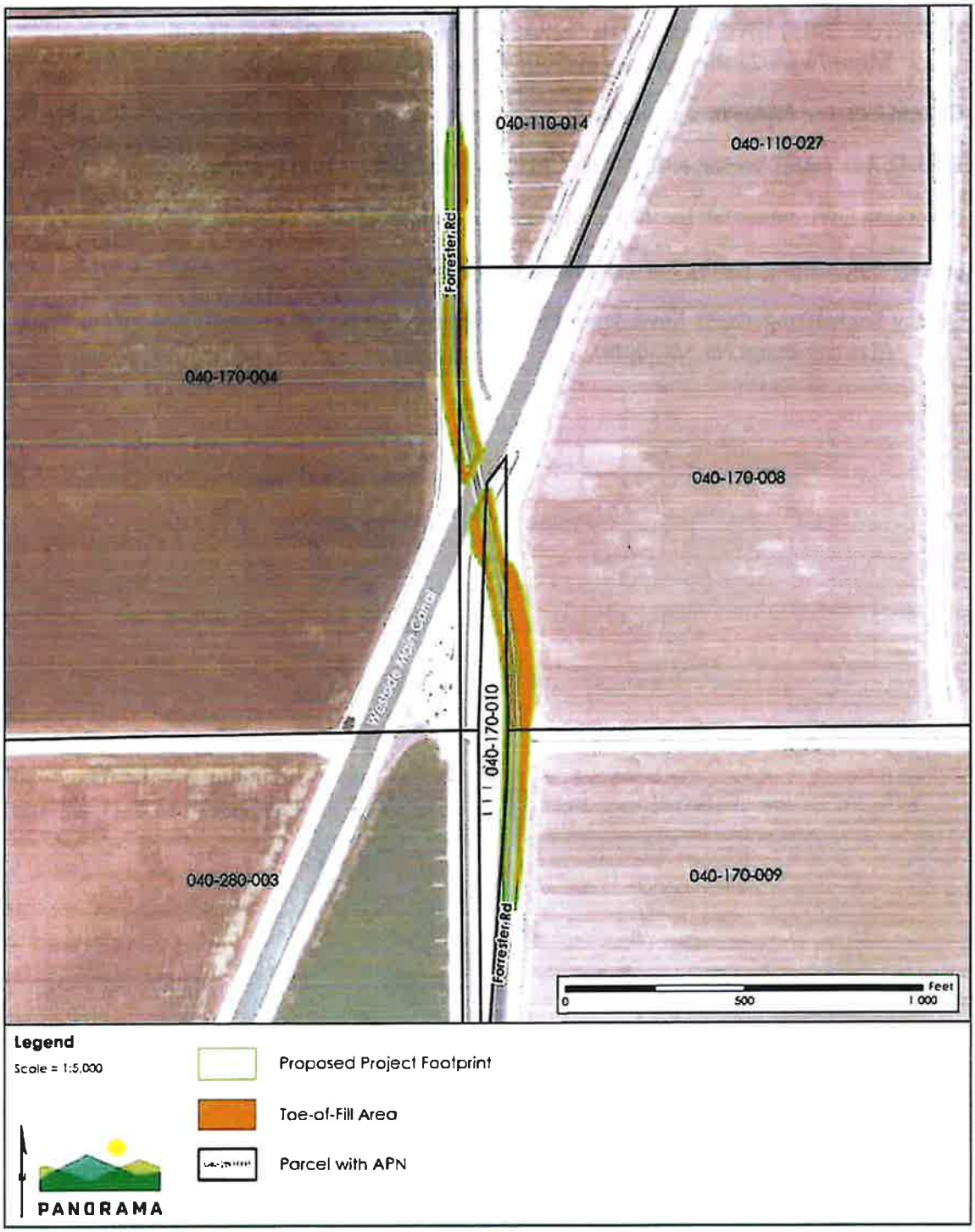
The proposed project would require permits and approvals prior to construction. Permits and approvals currently anticipated are listed in Table 4.

Table 4 Required Permits and Approvals

Permit or Approval	Agency	Function
1602 Streambed Alteration Agreement	California Department of Fish and Wildlife (CDFW)	For work in waterway to replace the Forrester Road Bridge.
Waste Discharge Requirements	Colorado River Regional Water Quality Control Board	For work in waterway to replace the Forrester Road Bridge.
National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	State Water Resources Control Board (SWRCB)	Reduce erosion of soils and siltation of local waterways during construction activities.
Dust Control Permit	Imperial County Air Pollution Control District (ICAPCD)	Reduce dust from construction activities.

Construction easement/ right-of-way/ Encroachment Permit	IID	Temporary use of land during construction and permanent use of land for proposed bridge abutments.
Right-of-way reestablishment	IID	For realignment of the IID Sumac Canal outside of the existing IID right-of-way.

Figure 5 Parcels in Project Vicinity



Source: (Quincy Engineering, 2020)

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TECHNICAL STUDY - APPENDIX C

Air Quality and Greenhouse Gas Emissions Data

Table 3.3 OFFROAD Default Horsepower and Load Factors

OFFROAD Equipment Type	Horsepower	Load Factor
Aerial Lifts	63	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	221	0.50
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	231	0.29
Crawler Tractors	212	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	158	0.38
Forklifts	89	0.20
Generator Sets	84	0.74
Graders	187	0.41
Off-Highway Tractors	124	0.44
Off-Highway Trucks	402	0.38
Other Construction Equipment	172	0.42
Other General Industrial Equipment	88	0.34
Other Material Handling Equipment	168	0.40
Pavers	130	0.42
Paving Equipment	132	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.30
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.40
Rubber Tired Dozers	247	0.40
Rubber Tired Loaders	203	0.36
Scrapers	367	0.48
Signal Boards	6	0.82
Skid Steer Loaders	65	0.37
Surfacing Equipment	263	0.30
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	78	0.50
Welders	46	0.45

From CalEEMod Version 2020.4.0 Appendix D

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
Excavators	2022	121	175	0.22749	0.191	3.074	1.6781	0.005	0.081	0.075	472.1917	0.153
Tractors/Loaders/Backho	2022	51	120	0.309669	0.26	3.53551	2.64718	0.005	0.142	0.131	475.8975	0.154
Off-Highway Trucks	2022	251	500	0.233409	0.196	1.24664	1.48975	0.005	0.054	0.05	474.7136	0.154
Rubber Tired Loaders	2022	176	250	0.269035	0.226	1.188	2.34693	0.005	0.079	0.072	469.9041	0.152
RubberTired Dozer	2022	251	500	0.565033	0.475	3.89489	4.80775	0.005	0.22	0.202	479.3107	0.155
Rollers	2022	51	120	0.369089	0.31	3.46973	3.21896	0.005	0.186	0.171	473.9291	0.153

Skid Steer Loaders	2022	51	120	0.195311	0.164	3.27037	2.18922	0.005	0.081	0.075	472.4321	0.153
Graders	2022	176	250	0.365229	0.307	1.27327	3.8881	0.005	0.124	0.114	474.239	0.153
Forklifts	2022	51	120	0.430627	0.362	3.67507	3.36021	0.005	0.223	0.205	471.5285	0.153
Cranes	2022	176	250	0.375691	0.316	1.60164	3.54149	0.005	0.147	0.135	472.9832	0.153
Aerial Lift	2022	51	120	0.124613	0.105	3.17602	1.62659	0.005	0.03	0.028	472.1142	0.153
Compressors	2022	51	120	7.001	0.413	3.662	2.844	0.006	0.165	0.165	568.299	0.037
Pavers	2022	121	175	0.255688	0.215	2.99478	2.17958	0.005	0.104	0.095	472.7599	0.153

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4
Concrete/Industrial saws	2023	51	120	3.223	0.32	3.507	2.478	0.006	0.123	0.123	568.3	0.028
Cranes	2023	176	250	0.353966	0.297	1.55262	3.22938	0.005	0.135	0.124	472.9738	0.153
Excavators	2023	121	175	0.212046	0.178	3.07648	1.46245	0.005	0.072	0.066	472.277	0.153
Generator	2023	51	120	5.671	0.279	3.347	2.477	0.006	0.117	0.117	568.299	0.025
Off-Highway Trucks	2023	251	500	0.222566	0.187	1.22057	1.32428	0.005	0.048	0.044	475.0488	0.154
Other Construction Equip	2023	121	175	0.325455	0.273	3.14152	2.69821	0.005	0.14	0.129	469.5579	0.152
Rubber Tired Loaders	2023	176	250	0.249759	0.21	1.17136	2.05963	0.005	0.069	0.063	469.824	0.152
Tractors/Loaders/Backho	2023	51	120	0.284572	0.239	3.52504	2.42607	0.005	0.12	0.11	476.4307	0.154
Air Compressors	2023	51	120	6.568	0.387	3.657	2.631	0.006	0.143	0.143	568.299	0.034
Forklifts	2023	51	120	0.388709	0.327	3.64655	3.0569	0.005	0.189	0.174	471.5285	0.153
Graders	2023	176	250	0.337478	0.284	1.25173	3.44101	0.005	0.111	0.103	473.9256	0.153
Rubber Tired Dozers	2023	176	250	0.467601	0.393	1.78266	4.09011	0.005	0.184	0.169	474.5967	0.153
Plate Compactor	2023	6	15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059
Rollers	2023	51	120	0.341189	0.287	3.45461	3.00302	0.005	0.165	0.152	473.9363	0.153
Skid Steer Loaders	2023	51	120	0.182613	0.153	3.26613	2.03854	0.005	0.069	0.063	472.656	0.153
Pavers	2023	121	175	0.237199	0.199	2.99398	1.95517	0.005	0.092	0.085	472.7178	0.153
Paving Equipment	2023	121	175	0.242414	0.204	3.05059	1.91255	0.005	0.093	0.086	470.663	0.152
Sweepers/Scrubbers	2023	51	120	0.417244	0.351	3.69499	3.28536	0.005	0.21	0.193	474.1157	0.153

Forrester Bridge - Construction Emissions (lbs./day)

Construction Phase	ROG	NOx	PM_{10}	$PM_{2.5}$
Demolition	2.48	21.12	0.89	0.83
Construction	0.49	4.35	0.22	0.21
Site Grading	1.51	16.52	0.69	0.63
Paving	3.55	29.70	1.31	1.21
Architectural Coating	0.07	0.44	0.02	0.02
Maximum Daily Project Emissions	**4.04**	**34.05**	**1.53**	**1.42**
Significance Thresholds				
Significant Impact?				

Project construction emissions were estimated using project-specific equipment type/number/hourly use data and by applying equipment-specific pollutant emission rates as specified in CalEEMod Appendix D.
Maximum daily project emissions occur during coincidence of the Construction and Paving phases.

Forrester Bridge - Construction Emissions

Pollutant: CO2

Demolition

EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	On-Site DayEmis	On-Site TotEmis	Off-Site Emfac	Off-Site Length	Off-Site DayEmis	Off-Site TotEmis	Total DayEmis	Total TotEmis	
Concrete/Industrial Saws	81	0.73	568.3	1	10	work days	4.00	hours/day	134414	1344143					134414	1344143	
Cranes	231	0.29	472.8733	1	10	work days	4.00	hours/day	126738	1267341					126738	1267381	
Excavators	158	0.38	472.2773	1	10	work days	8.00	hours/day	226844	2268441					226844	2268441	
Generator Sets	84	0.74	568.2993	1	10	work days	4.00	hours/day	141302	1413019					141302	1413019	
Off-Highway Trucks	400	0.38	471.8491	2	10	work days	8.00	hours/day	1161095	11610953					1161095	11610953	
Other Construction Equipment	172	0.42	469.5579	1	10	work days	8.00	hours/day	271367	2713668					271367	2713668	
Rubber Tired Loaders	203	0.36	468.824	2	10	work days	4.00	hours/day	274678	2746779					274678	2746779	
Tractors/Loaders/Backhoes	97	0.37	476.4307	2	10	work days	4.00	hours/day	136793	1367928					136793	1367928	
Haul Truck	1	1	25181.4825	1	10	work days	3	trips/day	5026	50259	1278.4703	32.0	38254	383544	43380	433803	600 cu yd.
Worker Commute				10.5	10	work days	2	trips/day	0	0	298.1058	14.0	37557	375572	37557	375572	
		* Equipment: CalEEMod Appendix D				Tot (grams)			2,478,257	24,782,570			95,912	959,116	2,574,169	25,741,687	25.74 MT
		Truck: EMFAC 2017 HHD Idle				Tot (lbs)			5463.6	54635.7			211.4	2114.5	5675.0	56750.1	28.38 tons
						Avg. Day (lbs)										5675.01	

Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Construction

EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	On-Site DayEmis	On-Site TotEmis	Off-Site Emfac	Off-Site Length	Off-Site DayEmis	Off-Site TotEmis	Total DayEmis	Total TotEmis	
Air Compressors	78	0.48	568.299	1	90	work days	2.00	hours/day	42554	3829881					42554	3829881	
Concrete/Industrial Saws	81	0.73	568.3	1	90	work days	1.00	hours/day	33604	3024122					33604	3024122	
Cranes	231	0.29	472.8733	1	90	work days	1.00	hours/day	31685	2851606					31685	2851606	
Excavators	158	0.38	472.2773	1	90	work days	2.00	hours/day	56711	5103892					56711	5103992	
Forklifts	89	0.2	471.3293	1	90	work days	1.00	hours/day	8393	755349					8393	755349	
Generator Sets	84	0.74	568.2993	1	90	work days	2.00	hours/day	70651	6358584					70651	6358584	
Other Construction Equipment	172	0.42	469.5579	2	90	work days	2.00	hours/day	135683	12211511					135683	12211511	
Tractors/Loaders/Backhoes	97	0.37	476.4307	1	90	work days	1.00	hours/day	17099	1538918					17099	1538919	
Haul Truck	1	1	25181.4825	0	90	work days	1	trips/day	0	0	1278.4703	30.0	0	0	0	0	
Worker Commute				11.5	90	work days	2	trips/day	0	0	298.1658	14.0	47092	4238306	47092	4238306	
		* Equipment: CalEEMod Appendix D				Tot (grams)			395,380	35,574,202			47,092	4,238,309	443,472	39,812,609	39.91 MT
		Truck: EMFAC 2017 HHD Idle				Tot (lbs)			873.9	78647.3			103.8	9343.8	977.7	87991.1	44.00 tons
						Avg. Day (lbs)										977.66	

Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Site Grading

EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	On-Site DayEmis	On-Site TotEmis	Off-Site Emfac	Off-Site Length	Off-Site DayEmis	Off-Site TotEmis	Total DayEmis	Total TotEmis	
Excavators	158	0.38	472.2773	1	30	work days	2.00	hours/day	56711	1701331					56711	1701331	
Graders	187	0.41	473.9251	2	30	work days	4.00	hours/day	290687	8720610					290687	8720610	
Other Construction (Demoli)	247	0.4	474.5867	3	30	work days	4.00	hours/day	375121	11253637					375121	11253637	
Plate Compactor	8	0.43	568.299	1	30	work days	1.00	hours/day	1955	58648					1955	58648	
Rollers	80	0.38	472.8363	2	30	work days	4.00	hours/day	115261	3457830					115261	3457819	
Skid Steer Loaders	65	0.37	472.654	2	30	work days	4.00	hours/day	90939	2728170					90939	2728170	
Tractors/Loaders/Backhoes	97	0.37	476.4307	2	30	work days	4.00	hours/day	136793	4103783					136793	4103783	
Haul Truck	1	1	25103.4825	1	10	work days	4.1	trips/day	10331	309927	1278.4703	30.0	38354	1150631	48685	1460559	3700 cu yd.
Worker Commute				18	10	work days	2	trips/day	0	0	299.1656	14.0	62790	1883697	62790	1883697	
		* Equipment: CalEEMod Appendix D				Tot (grams)			1,077,758	32,333,947			101,144	3,034,323	1,178,942	35,368,270	35.37 MT
		Truck: EMFAC 2017 HHD Idle				Tot (lbs)			2376.1	71283.4			223.0	6689.5	2599.1	77972.8	38.99 tons
						Avg. Day (lbs)										2599.10	

Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Paving

EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	On-Site DayEmis	On-Site TotEmis	Off-Site Emfac	Off-Site Length	Off-Site DayEmis	Off-Site TotEmis	Total DayEmis	Total TotEmis	
Asphalt truck - 4	402	0.38	475.8484	4	10	work days	8.00	hours/day	2322191	23221906					2322191	23221906	
Pavers	130	0.42	472.7179	2	10	work days	8.00	hours/day	412866	4129683					412966	4129657	
Paving Equipment	132	0.36	470.6163	2	10	work days	8.00	hours/day	357854	3578545					357854	3578545	
Rollers	80	0.38	472.8363	4	10	work days	8.00	hours/day	481045	4810453					461045	4610453	
Sweepers	64	0.46	474.1157	2	10	work days	4.00	hours/day	111664	1116637					111664	1116637	
Haul Truck	1	1	25103.4825	1	10	work days	4.1	trips/day	11727	117270	1278.4703	30.0	38354	383544	50081	500814	1400 cu yd.
Worker Commute				5	10	work days	2	trips/day	0	0	249.1658	14.0	17442	174416	17442	174416	
		* Equipment: CalEEMod Appendix D				Tot (grams)			3,677,447	36,774,473			55,796	557,960	3,733,243	37,332,432	37.33 MT
		Truck: EMFAC 2017 HHD Idle				Tot (lbs)			8107.3	81073.0			123.0	1230.1	8230.3	82303.1	41.15 tons
						Avg. Day (lbs)										8230.31	

Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Architectural Coating

EQUIPMENT	hp	LoadFac*	CO2Fac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	On-Site DayEmis	On-Site TotEmis	Off-Site Emfac	Off-Site Length	Off-Site DayEmis	Off-Site TotEmis	Total DayEmis	Total TotEmis	
Air Compressors	78	0.48	568.299	1	2	work days	2.00	hours/day	42554	85108					42554	85108	
Haul Truck	1	1	25103.4825	0	2	work days	1	trips/day	0	0	1278.4703	30.0	0	0	0	0	
Worker Commute				5	2	work days	2	trips/day	0	0	249.1658	14.0	17442	34883	17442	34883	
		* Equipment: CalEEMod Appendix D				Tot (grams)			42,554	85,108			17,442	34,883	59,996	119,992	0.12 MT
		Truck: EMFAC 2017 HHD Idle				Tot (lbs)			93.8	187.6			38.5	76.9	132.3	264.5	0.13 tons
						Avg. Day (lbs)										132.27	

Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

141.11 MT Tot

EEC ORIGINAL PKG

Forrester Bridge - Construction Emissions

Pollutant: NOx

Demolition

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Concrete/Industrial Saws	81	0.73	[illegible]		1	10	work days	4.00	hours/day	584	5841					584	5841	
Cranes	231	0.29	[illegible]		1	10	work days	4.00	hours/day	865	8653					865	8653	
Excavators	158	0.38	[illegible]		1	10	work days	8.00	hours/day	702	7024					702	7024	
Generator Sets	84	0.74	[illegible]		1	10	work days	4.00	hours/day	616	6159					616	6159	
Off-Highway Trucks	400	0.38	[illegible]		2	10	work days	8.00	hours/day	3237	32368					3237	32368	
Other Construction Equipment	172	0.42	[illegible]		1	10	work days	8.00	hours/day	1558	15583					1558	15583	
Rubber Tired Loaders	203	0.36	[illegible]		2	10	work days	4.00	hours/day	1204	12041					1204	12041	
Tractors/Loaders/Backhoes	97	0.37	[illegible]		2	10	work days	4.00	hours/day	697	6968					697	6968	
Haul Truck	1	1	[illegible]		1	10	work days	1	trips/day	25	251	[illegible]	30.0	77	771	102	1022	600 cu yd
Worker Commute					16.5	10	work days	2	trips/day	0	0	[illegible]	14.0	11	114	11	114	
		* Equipment: CalEEMod Appendix D				Tot (grams)				9,492	94,917			88	884	9,580	95,801	
		Truck: EMFAC 2017 [illegible]				Tot (lbs)				20.9	209.3			0.2	1.9	21.1	211.2	0.11 tons
						Avg. Day (lbs)											21.12	

Construction

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	[illegible]		1	90	work days	2.00	hours/day	197	17731					197	17731	
Concrete/Industrial Saws	81	0.73	[illegible]		1	90	work days	1.00	hours/day	147	13187					147	13187	
Cranes	231	0.29	[illegible]		1	90	work days	1.00	hours/day	216	19470					216	19470	
Excavators	158	0.38	[illegible]		1	90	work days	2.00	hours/day	176	15805					176	15805	
Forklifts	89	0.2	[illegible]		1	90	work days	1.00	hours/day	54	4887					54	4887	
Generator Sets	84	0.74	[illegible]		1	90	work days	2.00	hours/day	308	27715					308	27715	
Other Construction Equipment	172	0.42	[illegible]		2	90	work days	2.00	hours/day	780	70171					780	70171	
Tractors/Loaders/Backhoes	97	0.37	[illegible]		1	90	work days	2.00	hours/day	87	7836					87	7836	
Haul Truck	1	1	[illegible]		0	90	work days	1	trips/day	0	0	[illegible]	30.0	0	0	0	0	
Worker Commute					[illegible]	90	work days	2	trips/day	0	0	[illegible]	14.0	9	837	9	837	
		* Equipment: CalEEMod Appendix D				Tot (grams)				1,965	176,812			9	837	1,974	177,649	
		Truck: EMFAC 2017 [illegible]				Tot (lbs)				4.3	389.8			0.0	1.8	4.4	391.6	0.20 tons
						Avg. Day (lbs)											4.35	

Site Grading

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavators	158	0.38	[illegible]		2	30	work days	2.00	hours/day	176	5268					176	5268	
Graders	187	0.41	[illegible]		2	30	work days	4.00	hours/day	2111	63317					2111	63317	
Other Construction (Dozers)	247	0.4	[illegible]		2	30	work days	4.00	hours/day	3223	96685					3223	96685	
Plate Compactor	8	0.43	[illegible]		1	30	work days	1.00	hours/day	14	427					14	427	
Rollers	80	0.38	[illegible]		2	30	work days	4.00	hours/day	730	21910					730	21910	
Skid Steer Loaders	65	0.37	[illegible]		2	30	work days	4.00	hours/day	392	11766					392	11766	
Tractors/Loaders/Backhoes	97	0.37	[illegible]		2	30	work days	4.00	hours/day	697	20897					697	20897	
Haul Truck	1	1	[illegible]		1	30	work days	[illegible]	trips/day	52	1547	[illegible]	30.0	77	2313	129	3860	3700 cu yd.
Worker Commute					18	30	work days	2	trips/day	0	0	[illegible]	14.0	12	372	12	372	
		* Equipment: CalEEMod Appendix D				Tot (grams)				7,404	222,119			88	2,684	7,493	224,803	
		Truck: EMFAC 2017 [illegible]				Tot (lbs)				16.3	489.7			0.2	5.9	16.5	495.6	0.25 tons
						Avg. Day (lbs)											16.52	

Paving

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Asphalt truck - 4	402	0.38	[illegible]		4	10	work days	8.00	hours/day	6474	64735					6474	64735	
Pavers	130	0.42	[illegible]		2	10	work days	8.00	hours/day	1708	17080					1708	17080	
Paving Equipment	132	0.36	[illegible]		2	10	work days	8.00	hours/day	1454	14542					1454	14542	
Rollers	80	0.38	[illegible]		4	10	work days	8.00	hours/day	2971	29713					2971	29713	
Sweepers	64	0.46	[illegible]		3	10	work days	4.00	hours/day	774	7738					774	7738	
Haul Truck	1	1	[illegible]		1	10	work days	[illegible]	trips/day	59	585	[illegible]	30.0	77	771	136	1356	1400 cu yd.
Worker Commute					5	10	work days	2	trips/day	0	0	[illegible]	14.0	3	34	3	34	
		* Equipment: CalEEMod Appendix D				Tot (grams)				13,389	133,895			81	805	13,470	134,699	
		Truck: EMFAC 2017 [illegible]				Tot (lbs)				29.5	295.2			0.2	1.8	29.7	297.0	0.15 tons
						Avg. Day (lbs)											29.70	

Architectural Coating

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	NOxFac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	[illegible]		1	2	work days	2.00	hours/day	197	394					197	394	
Haul Truck	1	1	[illegible]		0	2	work days	1	trips/day	0	0	[illegible]	30.0	0	0	0	0	
Worker Commute					1	2	work days	2	trips/day	0	0	[illegible]	14.0	3	7	3	7	
		* Equipment: CalEEMod Appendix D				Tot (grams)				197	394			3	7	200	401	
		Truck: EMFAC 2017 [illegible]				Tot (lbs)				0.4	0.9			0.0	0.0	0.4	0.9	0.00 tons
						Avg. Day (lbs)											0.44	

EEC ORIGINAL PKG

Forrester Bridge - Construction Emissions

Pollutant: PM10

Demolition

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Concrete/Industrial Saws	81	0.73	0.122		1	10	work days	4.00	hours/day	29	291					29	291	
Cranes	231	0.29	0.135		1	10	work days	4.00	hours/day	36	362					36	362	
Excavators	158	0.38	0.072		1	10	work days	8.00	hours/day	35	348					35	346	
Generator Sets	84	0.74	0.117		1	10	work days	4.00	hours/day	29	291					29	291	
Off-Highway Trucks	402	0.38	0.018		2	10	work days	8.00	hours/day	117	1172					117	1172	
Other Construction Equipment	172	0.42	0.18		1	10	work days	6.00	hours/day	81	809					81	809	
Rubber Tired Loaders	203	0.36	0.069		2	10	work days	4.00	hours/day	40	403					40	403	
Tractors/Loaders/Backhoes	97	0.37	0.12		2	10	work days	4.00	hours/day	34	345					34	345	
Haul Truck	1	1	0.04177715		1	1	work days	1	[illegible]	0	0	[illegible]	30.0	0	3	0	3	600 cu yd.
Worker Commute					10.5	10	work days	2	trips/day	0	0	0.0051	14.0	2	15	2	15	
						Tot (grams)				402	4,020			2	18	404	4,038	
						Tot (lbs)				0.9	8.9			0.0	0.0	0.9	8.9	0.00 tons
						Avg. Day (lbs)											0.89	

* Equipment: CalEEMod Appendix D
Truck: EMFAC 2017 HHD Idle
Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Construction

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	0.142		1	90	work days	2.00	hours/day	11	984					11	964	
Concrete/Industrial Saws	81	0.73	0.122		1	90	work days	1.00	hours/day	7	435					7	435	
Cranes	231	0.29	0.131		1	90	work days	1.00	hours/day	9	814					9	814	
Excavators	158	0.38	0.072		1	90	work days	3.00	hours/day	9	778					9	774	
Forklifts	89	0.2	0.185		1	90	work days	1.00	hours/day	3	303					3	303	
Generator Sets	84	0.74	0.117		1	90	work days	2.00	hours/day	15	1309					15	1309	
Other Construction Equipment	172	0.42	0.18		2	90	work days	2.00	hours/day	40	3641					40	3641	
Tractors/Loaders/Backhoes	97	0.37	0.12		1	90	work days	1.00	hours/day	4	348					4	332	
Haul Truck	1	1	0.04177715		0	90	work days	1	trips/day	0	0	0.0051	36.0	0	0	0	0	
Worker Commute					11.5	90	work days	2	trips/day	0	0	0.0051	14.0	1	111	1	111	
						Tot (grams)				99	8,851			1	111	100	8,962	
						Tot (lbs)				0.2	19.5			0.0	0.2	0.2	19.8	0.01 tons
						Avg. Day (lbs)											0.22	

* Equipment: CalEEMod Appendix D
Truck: EMFAC 2017 HHD Idle
Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Site Grading

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavators	158	0.38	0.072		1	30	work days	2.00	hours/day	9	259					9	259	
Graders	187	0.41	0.111		2	30	work days	4.00	hours/day	68	2042					68	2042	
Other Construction (Dozers)	247	0.4	0.164		2	30	work days	4.00	hours/day	145	4363					145	4363	
Plate Compactor	8	0.43	0.181		1	30	work days	1.00	hours/day	1	17					1	17	
Rollers	80	0.38	0.165		2	30	work days	4.00	hours/day	40	1204					40	1204	
Skid Steer Loaders	65	0.37	0.069		2	30	work days	4.00	hours/day	13	398					13	398	
Tractors/Loaders/Backhoes	97	0.37	0.12		2	30	work days	4.00	hours/day	34	1034					34	1034	
Haul Truck	1	1	0.04177715		1	30	work days	4.7	trips/day	0	1	[illegible]	30.0	0	8	0	9	3700 cu yd.
Worker Commute					15	30	work days	2	trips/day	0	0	[illegible]	14.0	2	49	2	49	
						Tot (grams)				311	9,318			2	57	313	9,375	
						Tot (lbs)				0.7	20.5			0.0	0.1	0.7	20.7	0.01 tons
						Avg. Day (lbs)											0.69	

* Equipment: CalEEMod Appendix D
Truck: EMFAC 2017 HHD Idle
Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Paving

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
asphalt truck - #	402	0.38	0.043		4	10	work days	8.00	hours/day	235	2346					235	2346	
Pavers	130	0.42	0.182		2	10	work days	8.00	hours/day	80	804					80	804	
Paving Equipment	132	0.36	0.087		2	10	work days	8.00	hours/day	71	707					71	707	
Rollers	80	0.38	0.165		4	10	work days	8.00	hours/day	161	1605					161	1605	
Sweepers	64	0.46	0.21		2	10	work days	4.00	hours/day	49	485					49	495	
Haul Truck	1	1	0.04177715		1	10	work days	4.7	trips/day	0	0	[illegible]	30.0	0	3	0	3	1400 cu.yd
Worker Commute					3	10	work days	2	trips/day	0	0	[illegible]	14.0	0	5	0	5	
						Tot (grams)				596	5,957			1	7	596	5,964	
						Tot (lbs)				1.3	13.1			0.0	0.0	1.3	13.1	0.01 tons
						Avg. Day (lbs)											1.31	

* Equipment: CalEEMod Appendix D
Truck: EMFAC 2017 HHD Idle
Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Architectural Coating

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM10Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	0.142		1	2	work days	3.00	hours/day	11	21					11	21	
Haul Truck	1	1	0.04177715		0	1	work days	1	trips/day	0	0	[illegible]	30.0	0	0	0	0	
Worker Commute					5	2	work days	2	trips/day	0	0	0.0051	14.0	0	1	0	1	
						Tot (grams)				11	21			0	1	11	22	
						Tot (lbs)				0.0	0.0			0.0	0.0	0.0	0.0	0.00 tons
						Avg. Day (lbs)											0.02	

* Equipment: CalEEMod Appendix D
Truck: EMFAC 2017 HHD Idle
Truck: EMFAC2017 HHDT 35 mph
Worker Commute: EMFAC2017 LDT2 35 mph

Forrester Bridge - Construction Emissions
Pollutant: PM2.5

Demolition

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM2.5Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Concrete/Industrial Saws	81	0.73	[illegible]		1	10	work days	4.00	hours/day	29	291					29	291	
Cranes	231	0.29	0.114		1	10	work days	4.00	hours/day	33	332					33	332	
Excavators	158	0.38	[illegible]		1	10	work days	8.00	hours/day	32	317					32	317	
Generator Sets	84	0.74	0.117		1	10	work days	4.00	hours/day	29	291					29	291	
Off-Highway Trucks	402	0.38	0.244		2	10	work days	8.00	hours/day	108	1075					108	1075	
Other Construction Equipment	172	0.42	[illegible]		1	10	work days	6.00	hours/day	75	748					75	748	
Rubber Tired Loaders	203	0.36	[illegible]		2	10	work days	4.00	hours/day	37	368					37	368	
Tractors/Loaders/Backhoes	97	0.37	[illegible]		2	10	work days	4.00	hours/day	32	316					32	316	
Haul Truck	1	1	[illegible]		1	[illegible]	work days	1	trips/day	0	0	[illegible]	30.0	0	1	[illegible]	1	600 cu yd
Worker Commute					[illegible]	10	work days	2	trips/day	0	0	[illegible]	14.0	1	14	1	14	
						Tot (grams)				374	2,726			2	17	376	2,752	
						Tot (lbs)				0.8	8.2			0.0	0.0	0.8	8.3	0.00 tons
						Avg. Day (lbs)											0.83	

Construction

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM2.5Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	[illegible]		1	90	work days	2.00	hours/day	11	964					11	964	
Concrete/Industrial Saws	81	0.73	[illegible]		1	90	work days	1.00	hours/day	7	655					7	655	
Cranes	231	0.29	0.124		1	90	work days	1.00	hours/day	8	748					8	748	
Excavators	158	0.38	[illegible]		1	90	work days	2.00	hours/day	8	713					8	713	
Forklifts	89	0.2	0.174		1	90	work days	1.00	hours/day	3	279					3	279	
Generator Sets	84	0.74	0.117		1	90	work days	2.00	hours/day	15	1308					15	1308	
Other Construction Equipment	172	0.42	[illegible]		1	90	work days	2.00	hours/day	37	3355					37	3355	
Tractors/Loaders/Backhoes	97	0.37	[illegible]		1	90	work days	1.00	hours/day	4	355					4	355	
Haul Truck	1	1	[illegible]		0	90	work days	1	trips/day	0	0	[illegible]	30.0	0	0	0	0	
Worker Commute					[illegible]	[illegible]	work days	2	trips/day	0	0	[illegible]	14.0	1	106	1	106	
						Tot (grams)				93	8,377			1	106	94	8,483	
						Tot (lbs)				0.2	18.5			0.0	0.2	0.2	18.7	0.01 tons
						Avg. Day (lbs)											0.21	

* Equipment: CalEEMod Appendix D

Site Grading

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM2.5Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavators	158	0.38	[illegible]		1	30	work days	3.00	hours/day	8	238					8	238	
Graders	187	0.41	[illegible]		1	30	work days	4.00	hours/day	63	1893					63	1893	
Other Construction (Dozers)	247	0.4	[illegible]		1	30	work days	4.00	hours/day	134	4007					134	4007	
Plate Compactor	8	0.43	[illegible]		1	30	work days	1.00	hours/day	1	17					1	17	
Rollers	80	0.38	[illegible]		1	30	work days	4.00	hours/day	37	1109					37	1109	
Skid Steer Loaders	65	0.37	[illegible]		1	30	work days	4.00	hours/day	12	364					12	364	
Tractors/Loaders/Backhoes	97	0.37	0.11		1	30	work days	4.00	hours/day	32	947					32	947	
Haul Truck	1	1	0.0335[illegible]		1	[illegible]	work days	[illegible]	trips/day	0	1	[illegible]	31.0	0	8	0	8	3700 cu.yd.
Worker Commute					[illegible]	[illegible]	work days	2	trips/day	0	0	[illegible]	14.0	2	47	2	47	
						Tot (grams)				284	8,578			2	55	286	8,633	
						Tot (lbs)				0.6	18.9			0.0	0.1	0.6	19.0	0.01 tons
						Avg. Day (lbs)											0.63	

Paving

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM2.5Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
asphalt truck - 4	402	0.38	[illegible]		2	10	work days	8.00	hours/day	215	2151					215	2151	
Pavers	130	0.42	[illegible]		1	10	work days	6.00	hours/day	74	743					74	743	
Paving Equipment	132	0.36	[illegible]		1	10	work days	8.00	hours/day	65	654					65	654	
Rollers	80	0.38	[illegible]		4	10	work days	8.00	hours/day	148	1479					148	1479	
Sweepers	64	0.46	[illegible]		2	10	work days	4.00	hours/day	45	455					45	455	
Haul Truck	1	1	[illegible]		1	[illegible]	work days	[illegible]	trips/day	0	0	[illegible]	30.0	0	3	0	3	1800 cu yd.
Worker Commute					[illegible]	[illegible]	work days	2	trips/day	0	0	[illegible]	14.0	0	4	0	4	
						Tot (grams)				548	5,481			1	7	549	5,488	
						Tot (lbs)				1.2	12.1			0.0	0.0	1.2	12.1	0.01 tons
						Avg. Day (lbs)											1.21	

Architectural Coating

										On-Site		Off-Site				Total		
EQUIPMENT	hp	LoadFac*	PM2.5Fac*		Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	[illegible]		1	2	work days	2.00	hours/day	11	21					11	21	
Haul Truck	1	1	[illegible]		0	2	work days	1	trips/day	0	0	[illegible]	30.0	0	0	0	0	
Worker Commute					1	2	work days	2	trips/day	0	0	[illegible]	14.0	0	1	0	1	
						Tot (grams)				11	21			0	1	11	22	
						Tot (lbs)				0.0	0.0			0.0	0.0	0.0	0.0	0.00 tons
						Avg. Day (lbs)											0.02	

EEC ORIGINAL PKG

Forrester Bridge - Construction Emissions

Pollutant: ROG

Demolition

								On-Site				Off-Site				Total		
EQUIPMENT	hp	LoadFac*	ROGFac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Concrete/Industrial Saws	81	0.73	0.22	1	10	work days	4.00	hours/day	78	777					78	777	
Cranes	231	0.29	0.297	1	10	work days	4.00	hours/day	80	796					80	796	
Excavators	158	0.38	0.178	1	10	work days	8.00	hours/day	85	855					85	855	
Generator Sets	84	0.74	0.375	1	10	work days	4.00	hours/day	69	694					69	694	
Off Highway Trucks	402	0.38	0.181	2	10	work days	8.00	hours/day	4571	4571					4571	4571	
Other Construction Equipment	172	0.42	0.273	1	10	work days	8.00	hours/day	158	1578					158	1578	
Rubber Tired Loaders	203	0.36	0.21	2	10	work days	4.00	hours/day	123	1229					123	1229	
Tractors/Loaders/Backhoes	97	0.37	0.335	1	10	work days	4.00	hours/day	68	686					68	686	
Haul Truck	1	1	0.159	1	10	work days	1	trips/day	2	21	0.0167	30.0	0	0	2	21	903 cu yd
Worker Commute				18.33	10	work days	2	trips/day	0	0	0.0164	14.0	4	38	4	38	
								Tot (grams)	1,118	11,185			4	43	1,123	11,227	
								Tot (lbs)	2.5	24.7			0.0	0.1	2.5	24.8	0.01 tons
								Avg. Day (lbs)								2.48	

Construction

								On-Site				Off-Site				Total		
EQUIPMENT	hp	LoadFac*	ROGFac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	0.307	1	90	work days	2.00	hours/day	29	2604					29	2604	
Concrete/Industrial Saws	81	0.73	0.22	1	90	work days	2.00	hours/day	78	1703					78	1703	
Cranes	231	0.29	0.297	1	90	work days	1.00	hours/day	20	1791					20	1791	
Excavators	158	0.38	0.178	1	90	work days	2.00	hours/day	21	1924					21	1924	
Forklifts	89	0.3	0.329	1	90	work days	1.00	hours/day	8	524					8	524	
Generator Sets	84	0.74	0.375	1	90	work days	2.00	hours/day	35	3127					35	3127	
Other Construction Equipment	172	0.42	0.273	2	90	work days	1.00	hours/day	79	7100					79	7100	
Tractors/Loaders/Backhoes	97	0.37	0.335	1	90	work days	1.00	hours/day	9	772					9	772	
Haul Truck	1	1	0.159	0	90	work days	1	trips/day	0	0	0.0167	30.0	0	0	0	0	
Worker Commute				18.33	90	work days	2	trips/day	0	0	0.0167	14.0	3	278	3	278	
								Tot (grams)	217	19,543			3	278	220	19,822	
								Tot (lbs)	0.5	43.1			0.0	0.6	0.5	43.7	0.02 tons
								Avg. Day (lbs)								0.48	

Site Grading

								On-Site				Off-Site				Total		
EQUIPMENT	hp	LoadFac*	ROGFac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Excavators	158	0.38	0.178	1	30	work days	2.00	hours/day	21	641					21	641	
Graders	187	0.41	0.233	2	30	work days	4.00	hours/day	174	5226					174	5226	
Other Construction (Pavers)	247	0.4	0.301	2	30	work days	4.00	hours/day	111	3318					111	3318	
Plate Compactor	8	0.43	0.164	1	30	work days	1.00	hours/day	2	68					2	68	
Rollers	80	0.38	0.287	2	30	work days	4.00	hours/day	70	2094					70	2094	
Skid Steer Loaders	65	0.37	0.153	2	30	work days	4.00	hours/day	30	893					30	893	
Tractors/Loaders/Backhoes	97	0.37	0.335	2	30	work days	4.00	hours/day	69	2059					69	2059	
Haul Truck	1	1	0.159	1	30	work days	4.33	trips/day	4	129	0.0167	30.0	0	15	5	143	8700 cu yd
Worker Commute				18	30	work days	2	trips/day	0	0	0.0167	14.0	4	124	4	124	
								Tot (grams)	481	20,419			5	139	685	20,557	
								Tot (lbs)	1.5	45.0			0.0	0.3	1.5	45.3	0.02 tons
								Avg. Day (lbs)								1.51	

Paving

								On-Site				Off-Site				Total		
EQUIPMENT	hp	LoadFac*	ROGFac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
asphalt truck - A	402	0.38	0.181	4	30	work days	8.00	hours/day	914	9141					914	9141	
Pavers	130	0.42	0.155	2	30	work days	8.00	hours/day	174	1738					174	1738	
Paving Equipment	132	0.36	0.204	2	30	work days	8.00	hours/day	155	1551					155	1551	
Rollers	80	0.38	0.287	4	30	work days	8.00	hours/day	279	2792					279	2792	
Surfacers	64	0.46	0.354	2	30	work days	4.00	hours/day	83	827					83	827	
Haul Truck	1	1	0.159	1	30	work days	4.33	trips/day	5	49	0.0167	30.0	0	5	5	54	1400 cu yd
Worker Commute				18	30	work days	2	trips/day	0	0	0.0167	14.0	1	11	1	11	
								Tot (grams)	1,610	16,098			2	16	1,611	16,114	
								Tot (lbs)	3.5	35.5			0.0	0.0	3.6	35.5	0.02 tons
								Avg. Day (lbs)								3.55	

Architectural Coating

								On-Site				Off-Site				Total		
EQUIPMENT	hp	LoadFac*	ROGFac*	Quantity	T DURATION	UNIT	D DURATION	UNIT	DayEmis	TotEmis	Emfac	Length	DayEmis	TotEmis	DayEmis	TotEmis	
Air Compressors	78	0.48	0.307	1	2	work days	2.00	hours/day	29	58					29	58	
Haul Truck	1	1	0.159	0	1	work days	1	trips/day	0	0	0.0167	30.0	0	0	0	0	
Worker Commute				1	2	work days	2	trips/day	0	0	0.0167	14.0	1	2	1	2	
								Tot (grams)	29	58			1	2	30	60	
								Tot (lbs)	0.1	0.1			0.0	0.0	0.1	0.1	0.00 tons
								Avg. Day (lbs)								0.07	

TECHNICAL STUDY - APPENDIX D

Biological Resources Technical Memorandum

PANORAMA
ENVIRONMENTAL, INC.

MEMORANDUM

Date: January 20, 2022

To: Benjamin Guerrero Jr.
Division of Planning and Local Assistance
California Department of Transportation, District 11
4050 Taylor Street, MS 244
San Diego, CA 92110

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project – Biological Resources Technical Memorandum – 1st Draft

Project Overview

The Imperial County Public Works Department (County) proposes to implement the Forrester Road over Westside Main Canal Bridge Replacement project (proposed project). The proposed project is located in unincorporated Imperial County, northeast of the community of El Centro (Figure 1). Specifically, the proposed project is located along Forrester Road approximately 10 miles north of Interstate 8 (I-8). This proposed project would include the demolition of the existing County Bridge No. 58C-0014 over the Westside Main Canal and Sumac Canal, and the construction of a replacement bridge that will span the Westside Main Canal (Figure 2).

The purpose of the proposed project is to replace the existing, structurally deficient bridge with a new, modern bridge that would be wider, satisfy current design and seismic standards, and be capable of carrying current vehicular loads. The existing bridge width, railing, transition, approach railing, and terminal sections do not meet current design standards. Several design features are seismically vulnerable, and the bridge would have a questionable safety performance during an earthquake. Embankment erosion has exposed the bridge abutment piles and undermined the roadway fill behind the abutments.

The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards. Rehabilitation and retrofitting of the existing bridge were evaluated as options and were deemed not cost effective compared to complete replacement.

Environmental Setting

The proposed project is not located within or immediately adjacent to a river designated as part of the Wild and Scenic River System. The closest designated Wild and Scenic River to the proposed project site is Palm Canyon Creek in Riverside County located approximately 100 miles to the northwest. The proposed project area lies within unincorporated Imperial County. It is surrounded by active agricultural fields and bisected by Forrester Road. Based on the 2021 habitat assessment, there are three land cover types within the proposed project area and 150-meter buffer: open water, agriculture, and developed lands (Figure 3). Agriculture is the dominant land cover type within the survey area. This community covers most of the proposed project area.

Surveys

Panorama biologist Korey Klutz conducted a burrowing owl habitat assessment and a concurrent focused survey for burrowing owl on April 12, 2021 to evaluate habitat suitability and species presence within the proposed project area. Breeding season surveys were performed within suitable habitat identified during the habitat assessment by Korey Klutz in accordance with the survey guidelines (CDFW 2012).

Focused surveys were then conducted on three additional dates between May and July 2021, in accordance with the procedure and timing requirements described in the CDFW survey guidelines. All accessible areas of suitable habitat, including agricultural fields, roads and road shoulders, were surveyed on foot, by conducting meandering transects. Areas that were not accessible by foot were surveyed using binoculars. All avian species observed during the surveys were noted and suitable burrows were recorded using a handheld global positioning system (GPS) device, with notation made on presence or absence of burrowing owl sign (e.g., pellets, whitewash, prey remains, feathers, or decoration).

Sensitive Natural Communities

A habitat assessment was conducted in 2021 and the vegetation communities that occur in the proposed project area are included in Figure 3. Based on the habitat assessment performed it was concluded that although wetlands are located within the vicinity of the proposed project, there are no wetlands within the proposed project site where ground disturbance and vehicle/ equipment access would occur. The Westside Main Canal and Sumac Canal are mapped as riverine resources and no wetlands are mapped in the area in the USFWS National Wetland Inventory. Therefore, no sensitive natural communities exist in the proposed project site that would be impacted by the proposed project.

Special-Status Species

The California Department of Fish and Game's (CDFW) California Natural Diversity Database (CNDDB; Figure 4) records were reviewed to identify rare and special-status species likely to

occur within a 5-mile radius around the proposed project site. The following special status animal species were reported:

- Palm Springs pocket mouse (*Perognathus longimembris bangsi*) (CDFW status: species of special concern [SSC])
- Burrowing owl (*Athene cunicularia*) (CDFW status: SSC)
- Lowland leopard frog (*Lithobates yavapaiensis*) (CDFW status: SSC)
- Mountain plover (*Charadrius montanus*) (CDFW status: SSC)
- Flat-tailed horned lizard (*Phrynosoma mcallii*) (CDFW status: SSC)

No federally listed special-status wildlife species or migratory birds were reported by a 2022 USFWS IPaC query of the proposed project site (Attachment A). One candidate for listing on the federal Endangered Species List was included in the USFWS IPaC list: Monarch butterfly (*Danaus plexippus*). None of the species reported by the CNDDB query is federally listed and no critical habitat or essential fish habitat occurs within or adjacent to the proposed project area. No listed or special status fish or aquatic species are likely to occur within the Westside Main Canal or Sumac Canal and, therefore, proposed project activities would not have bio-acoustical impacts on listed or special status fish or aquatic species.

The review of the CNDDB, IPaC, and query of Calflora indicated no rare, threatened, or endangered plant species with potential to occur within 5 miles of the proposed project area.

Table 1 Potential for Species to Occur within the Project

Species	Status	Habitat Available on Site
Palm Springs pocket mouse	CDFW SSC	Low – Species prefers sites with dense to moderately dense vegetative cover and avoids areas disturbed by human habitation (Brylski, 1998). Agricultural operations and traffic on Forrester Road and along IID canals are anticipated to deter species habitation. The most recent CNDDB observation of the pocket mouse is from 2007, approximately 4 miles away.
Burrowing owl	CDFW SSC USFWS: BCC	Low to Moderate – Potential habitat, including burrows, occur within the proposed project area. The nearest documented occurrence was recorded approximately 4 miles away in 2003.
Lowland leopard frog	CDFW SSC	No potential to occur –Species are typically more abundant in deep water, found in ponds, streams, and river pools, or in scrub desert localities (Platz 1963). Specimens have not recently been collected in Imperial County, California. The CNDDB Record is dated 1909 and identifies the species as "extirpated."
Mountain plover	CDFW SSC USFWS: BCC	Low – Species prefers shortgrass prairies and high, open sediment habitats (AllAboutBirds 2022). Agricultural operations and traffic on Forrester Road and along IID canals are anticipated to deter species habitation. The CNDDB Record is dated January 2011 and noted that 21 species were spotted.

Flat-tailed horned lizard	CDFW SSC	Low – Species prefers sites with habitat that is sandy desert hardpan or gravel flats with scattered sparse vegetation of low species diversity. CNDDB Records show that one sighting occurred in July 2017.
Monarch Butterfly	Candidate for listing on ESA	No Potential – Monarch butterflies use a wide variety of habitats but rely on milkweed as a larval host plant. Adult Monarch butterflies migrate from the western United States to Mexico and feed on nectar from flowers. No monarch butterfly have been recorded in the project vicinity in CNDDB.

Notes:
CDFW SSC = California Department of Fish and Wildlife species of special concern
USFWS BCC = United States Fish and Wildlife Service Bird of Conservation Concern
ESA = Endangered Species Act
Note that the CNDDB results also include Colorado valley woodrat, which is not listed on the state of federal endangered species list or designated as a SSC; therefore, the species was not considered in this analysis.

Burrowing Owl

The unvegetated berms, irrigation channels, road shoulders, and small areas of open ground within and adjacent to the proposed project area were determined to provide potentially suitable habitat for burrowing owl.

No indicators of burrowing owl presence, such as visible whitewash, feathers, pellets, or bones, were detected in the survey area during the four focused surveys conducted on April 12, May 14, June 27, and July 15, 2021. Only one burrow of the appropriate size and shape for burrowing owl use was observed during the surveys. This burrow lacked any sign of burrowing owl, including the lack of visible whitewash, feathers, pellets, or bones. In addition to the one potentially suitable burrow, a few small mammal burrows were also observed. The smaller burrows were generally less than three inches in diameter and likely belonged to small fossorial rodents. No burrowing owl sign was observed at these smaller burrows. Based on the habitat assessment and focused burrowing owl surveys, the species is considered to have a low to moderate potential to occur.

Effects to Species

Special-Status Species

No special status plant species have potential to occur within the proposed project site. However, one special status wildlife species, the burrowing owl, does have a moderate potential to occur. In recent focused surveys, only one burrow of the appropriate size and shape for burrowing owl use was observed and this burrow lacked any sign of burrowing owl, including the lack of visible whitewash, feathers, pellets, or bones. Nonetheless, the potential for impacts to the burrowing owl during construction of the proposed project may

exist. The County will implement pre-construction surveys in accordance with Avoidance/ Minimization Measure BIO-01 to avoid any potential direct and indirect impacts to burrowing owls.

Migratory Birds

Pursuant to the Migratory Bird Treaty Act (MBTA) of 1918, it is unlawful to take, possess, import, export, transport, sell, offer for sale, purchase, or barter any migratory bird, or any part, nest, or eggs of any such bird except under the terms of a valid permit. Take is defined as the action of or attempt to pursue, hunt, shoot, collect, or kill. In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Migratory birds protected under the MBTA have potential to nest on or adjacent to the proposed project site. Construction that occurs between February 1 and August 31, the common breeding season for most migratory birds, could cause direct impacts to nests and/or nesting activities could occur if nests occur within areas of grading or where equipment would be operated. Indirect impacts, such as elevated noise levels in the proposed project vicinity, could also affect nests. Demolition of the existing bridge could result in the destruction or abandonment of eggs or nests. The County will implement pre-construction nesting bird surveys in accordance with Avoidance/Minimization Measure BIO-02 to avoid direct and indirect impacts to nesting birds.

Invasive Species

Proposed project construction involves vegetation removal, demolition of the existing bridge structure, and construction of the new bridge structure. The use of construction equipment and grading could result in the introduction of invasive species. The County will implement standard measures to minimize the spread of invasive species, such as the cleaning of all construction equipment prior to arriving at the proposed project site in accordance with Avoidance/Minimization Measure BIO-03.

Avoidance Measures

AMM BIO-01. Burrowing Owl Pre-Construction Survey: A preconstruction survey shall be performed within 14 days prior to start of construction. A report detailing the preconstruction survey shall be submitted to the appropriate agency or agencies (i.e., Imperial County, Caltrans, and CDFW). If burrows are found within 100 meters of construction occurring between October 16 and March 31; 200 meters of construction occurring between August 16 and October 15; and 500 meters of construction occurring between April 1 and August 15th any occupied burrows shall be sheltered in place using hay bales or barricades and monitored daily during breeding season and weekly in the non-breeding season. The biologist shall have the authority to establish minimum distances to active nests and to stop work if owls are showing signs of distress. If sheltering in place is not feasible, passive relocation of the owls shall be required after consultation with CDFW.

AMM BIO-02. Nesting Bird Survey. For all construction-related activities that take place within the nesting season (February 1 to August 31), including brushing and grading for vegetation removal, a preconstruction nesting bird survey shall be conducted by a qualified biologist no more than two weeks prior to project initiation if required. The survey shall include a 500-foot buffer except where prohibited by private ownership. If active nests are found, a letter report shall be sent to the USFWS for federal-listed species. A no-disturbance buffer zone of 100 to 500 feet shall be established around the nests according to the avian biologist's assessment of the species' sensitivity to disturbance. Within this buffer zone, no construction shall take place until August 30 or the biologist determines that the nest is no longer active.

AMM BIO-03. Invasive Species Control: The following measures shall be implemented to prevent the spread of invasive species:

- Limit disturbance areas during construction to the minimal required to perform work and limit ingress and egress to defined routes
- Implement vehicle wash and inspection procedures and closely monitor the types of materials brought onto the site to minimize the potential for weed introduction
- Use of certified weed free mulch, straw wattles, hay bales and seed mixes

References

Brylski, P. V. (1998). Palm Springs pocket mouse, Perognathus longimembris bangsi. *Terrestrial Mammal Species of Special Concern in California, Bolster, B.C., Ed.*

California Department of Fish and Wildlife (2012). Staff Report on Burrowing Owl Mitigation. March.

Platz, J. E. (1963). "Rana yavapaiensis (Platz and Frost) Lowland Leopard Frog." Catalogue of American Amphibians and Reptiles. American Society of Ichthyologists and Herpetologists, 418.1-418.2. https://amphibiaweb.org/species/5187

All About Birds, Cornell Lab of Ornithology. (n.d.). Retrieved January 20, 2022, from https://www.allaboutbirds.org/guide/Mountain_Plover/id

Figure 1 Project Location

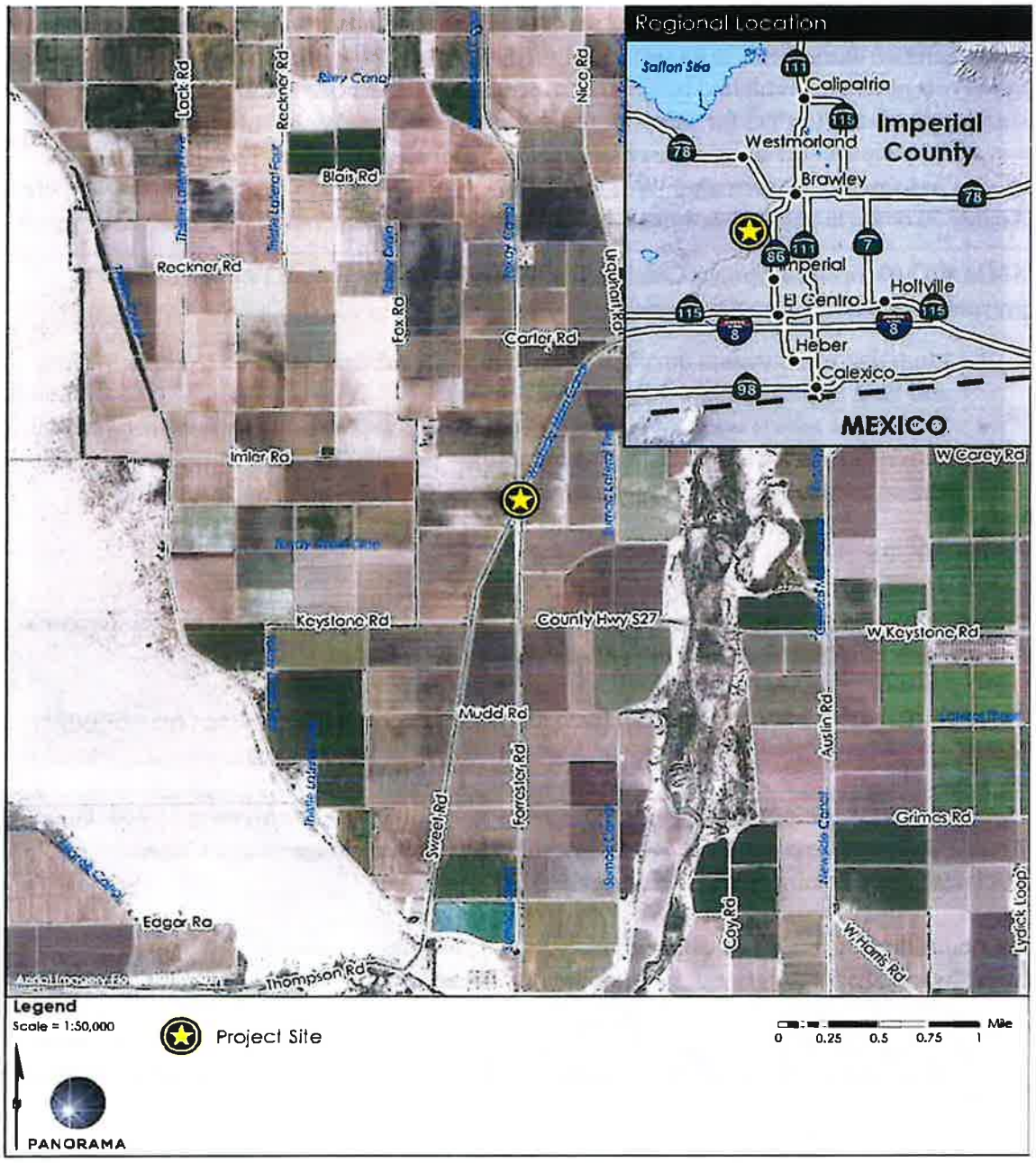


Figure 2 **Site Plan**

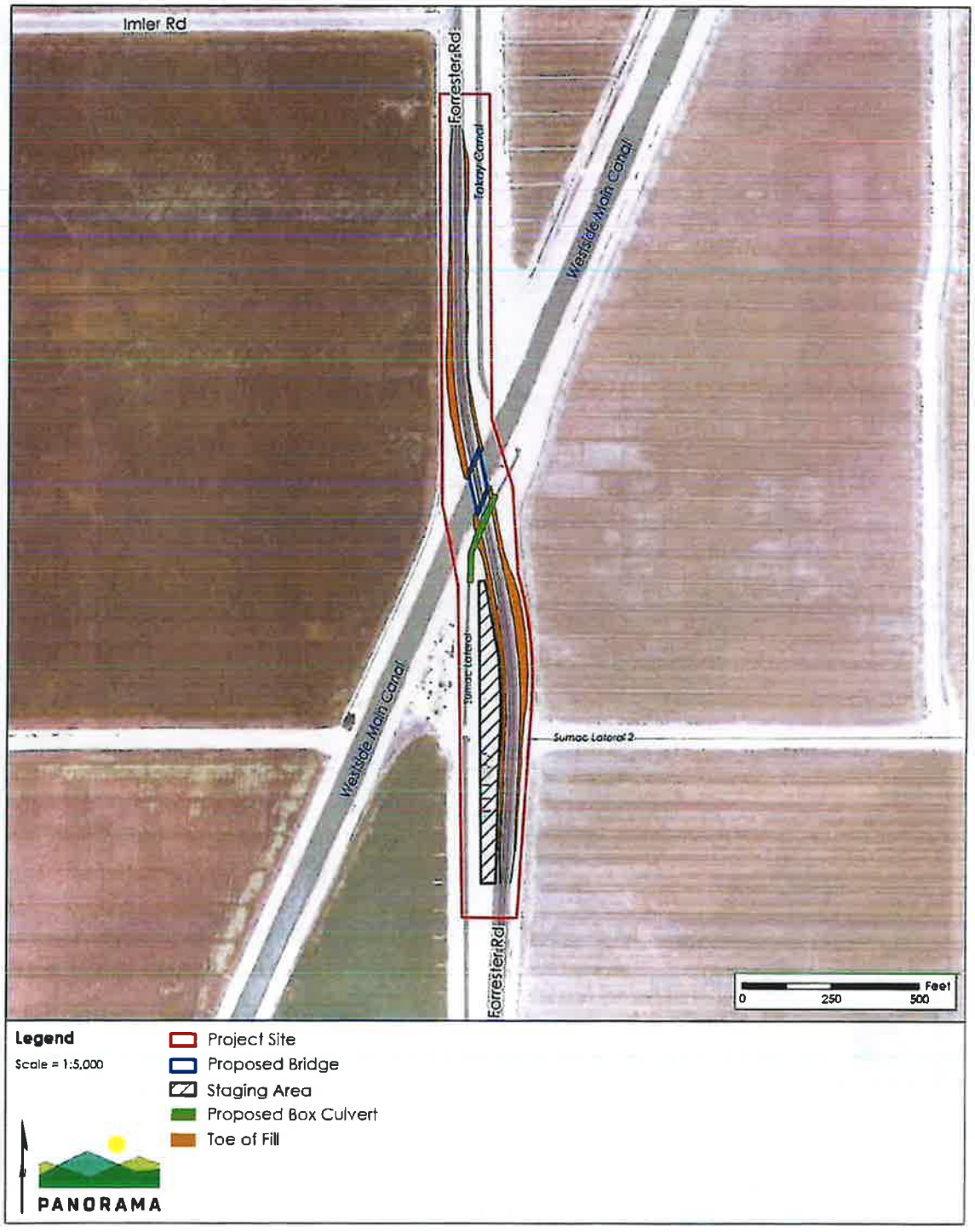
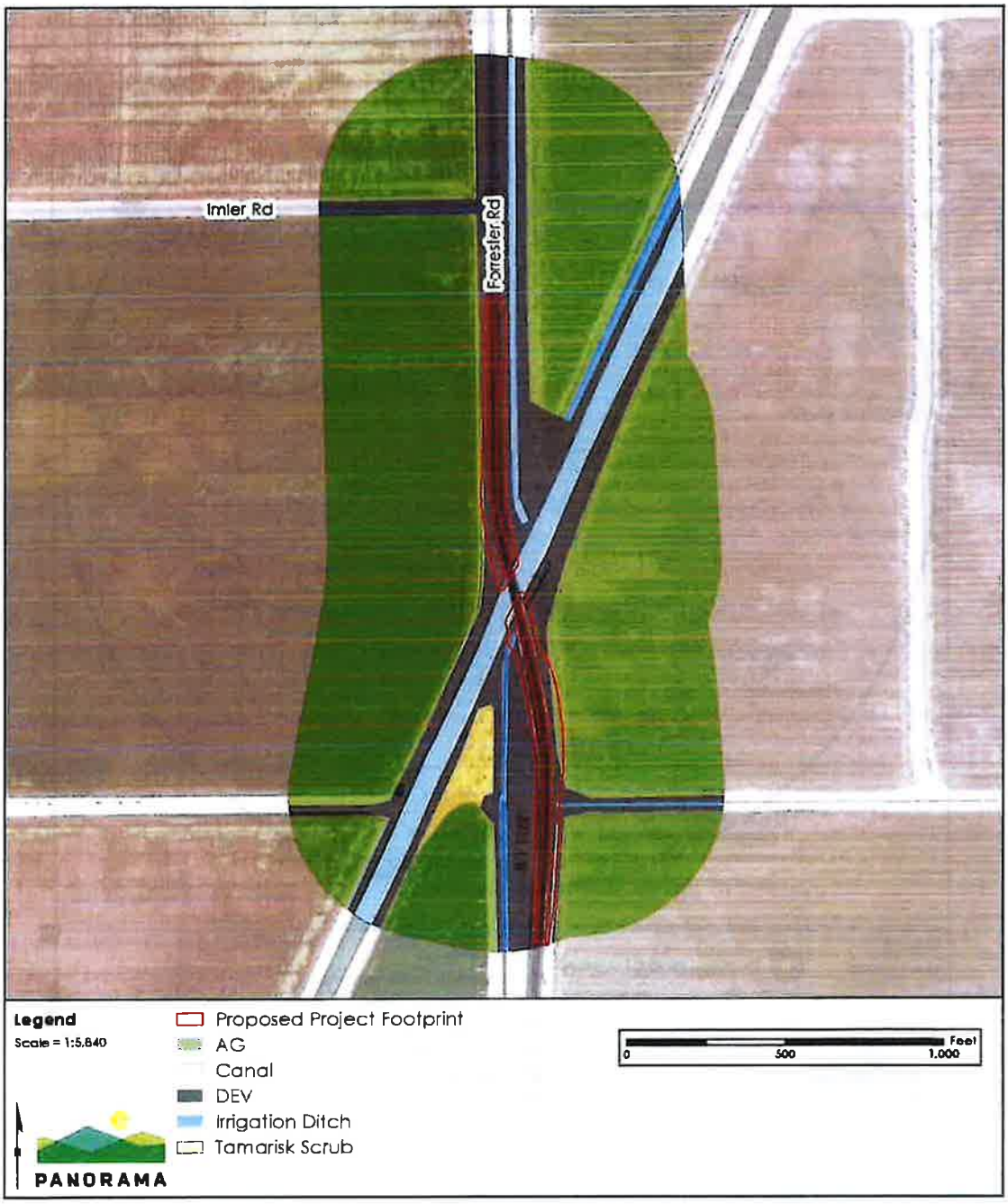
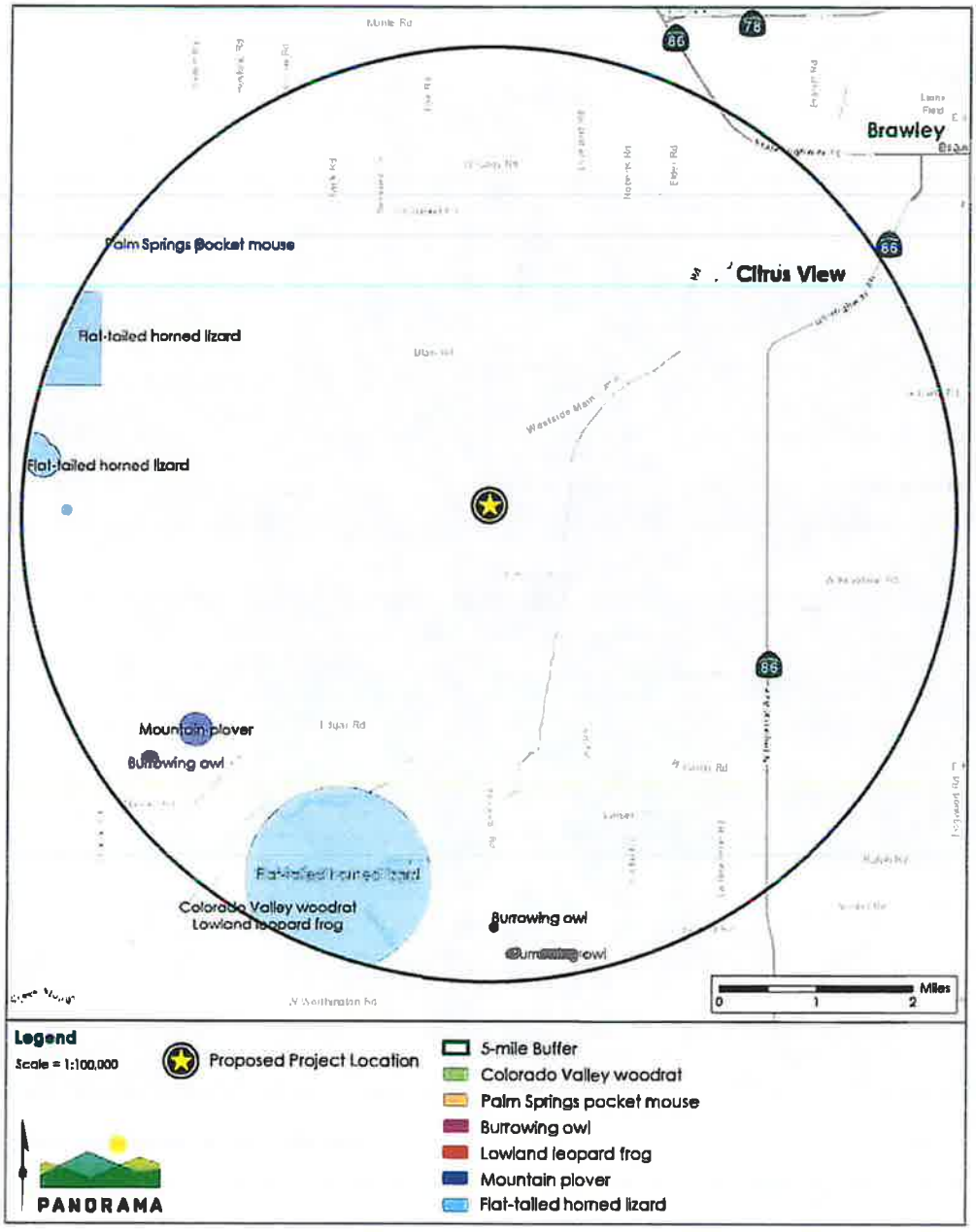


Figure 3 Vegetation Communities



Note: AG = Active agriculture; DEV = Developed

Figure 4 **CNDDB Occurrences**



Attachment A: 2022 USFWS IPac Query for Survey Area

IPaC **U.S. Fish & Wildlife Service**

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
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

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[1] 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[2]).

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:

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found **No critical habitat has been designated for this species.** https://ecos.fws.gov/ecp/species/9743	**Candidate**

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.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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 http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- **Nationwide conservation measures for birds** http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

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 migratory birds potentially occurring 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 AKN Phenology 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, migrating or present year-round in my project 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 refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. 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

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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME
This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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.

TECHNICAL STUDY - APPENDIX E

Cultural Resource Studies

Archaeological Survey Report for the Forrester Road Over Westside Main Canal Bridge Replacement Project, Imperial County, California

Federal Project No. BRLS 5958 (094)

Approved by:

Kevin Hovey
District 11 Environmental Analysis, Branch D Chief
4050 Taylor Street
San Diego, California 92110

Prepared by:

Sherri Andrews

Date: June 9, 2022

Sherri Andrews, M.A., RPA
Senior Archaeologist
ASM Affiliates, Inc.

Reviewed by:

Date: _____

Koji Tsunoda
PQS PI Prehistoric Archaeology
Caltrans District 11

USGS 7.5-minute Quadrangle: Brawley, California
Area: Approximately 9.65 acres

Cultural Resources: P-13-008334 (CA-IMP-7834; Westside Main Canal), County Bridge No. 58C-0014, Imperial County

June 2022

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SUMMARY OF FINDINGS

This investigation was conducted by ASM Affiliates, Inc. (ASM) for the California Department of Transportation (Caltrans) in support of the proposed Forrester Bridge Replacement Project (project or undertaking), which includes the replacement of the Forrester Bridge (Bridge No. 58C-0114). The project proponent is Imperial County (County), with local assistance funding from the Federal Highway Administration (FHWA). FHWA serves as the federal lead agency for National Environmental Policy Act (NEPA) compliance. Caltrans is assigned by FHWA to provide oversight for the completion of the environmental review process. The County is serving as lead agency for compliance with the California Environmental Quality Act (CEQA).

This Archaeological Survey Report (ASR) was prepared in support of the proposed project's environmental compliance with NEPA and Section 106 of the National Historic Preservation Act (NHPA). This report details the methods and results of the records search and literature review, the archaeological survey, and consultation efforts undertaken by County staff on behalf of Caltrans with Native American representatives.

This report documents the results of a Phase I archaeological survey of the approximately 9.65-acre survey area, which includes the entirety of the footprint for the Forrester Road over Westside Main Canal Bridge Replacement Project (Project) in Imperial County, California. The survey coverage area for the Project extends approximately 0.45 mile north-south along Forrester Road between Imler Road to the north and W. Keystone Road to the south. It is shown on the USGS Brawley 7.5-minute topographic quadrangle within Section 22, Township 14 South, Range 13 East, San Bernardino Base and Meridian. The proposed undertaking is the demolition of existing County Bridge No. 58C-0014 over the Westside Main Canal and Sumac Lateral Canal and the construction of a replacement bridge. The existing bridge is not considered eligible for listing in the National Register of Historic Places (NRHP).

A California Historical Resources Information System (CHRIS) records search for this study was conducted at the South Coastal Information Center (SCIC), San Diego State University, by SCIC staff, on January 21, 2022. The search included the survey area and 0.25-mi. buffer around it. The results of the search indicated that no pre-contact or archaeological resources have been previously documented within the Forrester Bridge project area or potential staging areas. However, two previously recorded built environment resources were identified and relocated within the survey coverage area. These include CA-IMP-7834 (P-33-008334), the Westside Main Canal, and Bridge No. 58C-0114, which was constructed in 1950 and has been evaluated by Caltrans as not eligible for the NRHP. In 2001, the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All-American Canal was eligible for the NRHP and by extension, the Westside Main Canal is also recommended eligible under Criterion A. The Sumac Lateral Canal was also identified as associated with the Westside Main Canal, running parallel to Forrester Road.

An intensive pedestrian survey of the Project footprint was conducted by ASM Associate Archaeologist Larry Tift on January 27, 2022. The visibility within the paved Forrester Road, the Westside Main Canal, and the Sumac Lateral Canal was poor (0-25 percent ground surface visibility), while ground surface visibility was excellent (76-100 percent) in the areas adjacent to Forrester Road and the canals and within a small section of graded farm road that intersects Forrester Road from the east. Field notes, photos, and other data gathered during this study are archived at the ASM office in Carlsbad. No archaeological resources were identified within the survey coverage area.

The Westside Main Canal, IMP-7834, was constructed in 1907. It is a part of the Imperial Irrigation District (IID) canal system and runs for approximately 40 mi. through agricultural land in the Imperial

Valley. Portions of IMP-7834 have been previously recorded by J. Hupp of Caltrans in 1999; N. Harris and M. Oberndorgf of HDR in 2000; J. McKenna of McKenna et al. in 2007; J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants in 2007; R. Rowe of EPG in 2007; J. Hollins of URS Corporation in 2009; C. Bowden-Renna of AECOM in 2010 and 2011; J. Krintz of ASM in 2011; H. Thompson of kp environmental, LLC in 2011; C. Bodmer, B. Bartram, B. Johnson, T. Murphy, and S. Wintergerst of Chambers Group, Inc. in 2011; and J. Lennen of ASM in 2017. Some portions of the canal have been recommended eligible for listing in the NRHP and the California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in the development of the Imperial Valley while other segments have been recommended not eligible due to lack of integrity.

It is Caltrans' policy to avoid cultural resources whenever possible. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. Additional survey will be required if the Project changes to include areas not previously surveyed.

1. INTRODUCTION

This report presents the results of a cultural resources inventory conducted by ASM Affiliates, Inc. (ASM) for the approximately 0.45-mile (mi.)-long Forrester Road over Westside Main Canal Bridge Replacement (Project), Imperial County, California (Figure 1). The Project consists of an approximately 9.65-acre area including all permanent and temporary impact areas and construction staging and access areas (Figure 2). The archaeological pedestrian survey of the survey coverage area was performed on January 27, 2022. Figure 3 shows the survey coverage area.

PROJECT PERSONNEL

Sherri Andrews, ASM Senior Archaeologist (M.A. in Anthropology, California State University, Northridge) served as the principal investigator. She exceeds the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR 61).

Larry Tift, ASM Associate Archaeologist (B.A. in Anthropology, San Diego State University), served as the field director and performed the pedestrian survey.

Laura Taylor Kung, ASM Senior Architectural Historian (M.A. in Historic Preservation Planning, Cornell University), served as the historian for this study and conducted historic research on the Westside Main Canal. She meets the Secretary of the Interior's Professional Qualifications Standards for History (36 CFR 61).

Resumes of key personnel are provided in Appendix A.

PROJECT LOCATION AND DESCRIPTION

The Project is located in Imperial County, along Forrester Road, approximately 10 mi. north of Interstate 8 (I-8) and 5 mi. southwest of Brawley, California. Bridge No. 58C-0114 spans the Westside Main and Sumac Lateral canals approximately 1,330 feet (ft.) south of the intersection of Forrester and Imler roads. The Project area is shown on the USGS Brawley 7.5-minute topographic quadrangle within Section 22, Township 14 South, Range 13 East, San Bernardino Base and Meridian.

The purpose of the Project is to replace the existing, structurally deficient bridge with a new, modern bridge that would be wider, satisfy current design and seismic standards, and be capable of carrying current vehicular loads. The existing bridge width, railing, transition, approach railing, and terminal sections do not meet current design standards. Several design features are seismically vulnerable, and the bridge would have a questionable safety performance during an earthquake. Embankment erosion has exposed the bridge abutment piles and undermined the roadway fill behind the abutments. The bridge railings and approach guardrails on both sides of the bridge have also experienced damage.

The proposed replacement bridge would span the Westside Main and Sumac Lateral canals in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-ft.-wide lanes, two 8-ft.-wide paved shoulders, and a 70-mi.-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 ft. to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 900 ft. on the south end of the bridge and 800 ft. on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Headwall structures on the Sumac Lateral

Canal would be reconstructed to avoid conflict with rebuilt approach road segments and a new culvert will be constructed under Forrester Road.

This Project includes a single survey coverage area in consideration of potential Project-related effects to both archaeological and historic built environment resources. The survey coverage area includes the entirety of the Project footprint, which includes the proposed bridge, roadway approaches, the Project right of way needs, and temporary construction easements. The vertical extent of the survey coverage area for the Project is an approximate excavation depth of up to 10 ft. below the existing grade within the Westside Main Canal and up to 6 ft. below existing grade associated with the creation of the Sumac Lateral Canal culvert.

SOURCES CONSULTED

A California Historical Resources Information System (CHRIS) records search for this study was conducted at the South Coastal Information Center (SCIC), San Diego State University, by SCIC staff, on January 21, 2022 (Appendix B). This search included the survey area and 0.25-mi. buffer around the survey area. Records on file at the SCIC identified five previously conducted studies for various projects within a 0.25-mi. radius of the survey area (Table 1). Two of the reports have addressed the survey area directly, specifically the Forrester Road Bridge. Both of these surveys were negative for pre-contact and/or archaeological resources. Approximately 25 percent of the survey coverage area has been previously surveyed for cultural resources.

Table 1. Previous Cultural Resources Reports Addressing the Survey Area and the 0.25-Mi. Records Search Radius

National Archaeological Database No.	Report No. (IM-)	Author(s), Date	Title
1100034	00034	M. A. Barker, 1975	Assessment of Archaeological, Historical, and Paleontological Elements Contained in the Draft Environmental Impact Report for Conditional Use Permit for Imperial Valley Dumping Assoc.
1100441	00441	ENSR Consulting and Engineering, 1990	Environmental Assessment/Initial Study for the Placement of Fiber Optic Facilities between Salton Microwave Station and Calexico California
1100665	00665	J. von Werlhof, 1999	Historic Property Survey Report, Archaeological Survey Report, Forrester Road Bridge at Westside Main Canal
1100802	00802	J. von Werlhof, 2000	Department of Public Works, Imperial County, Report on Forrester Road Bridge at Westside Main Canal
1101306	01306	Wirth Associates, Inc., 1980	APS/SDG&E Interconnection Project Environmental Study Phase II Corridor Studies - Native American Cultural Resources Appendices

The records search results indicated that only one historical-period built environment resource had been previously recorded within the 0.25-mi. search radius, the Westside Main Canal, P-13-008334 / CA-IMP-7834; no historic addresses have been previously recorded within the records search radius. No previously documented archaeological sites or resources were found within the Project footprint as a result of these identification efforts.

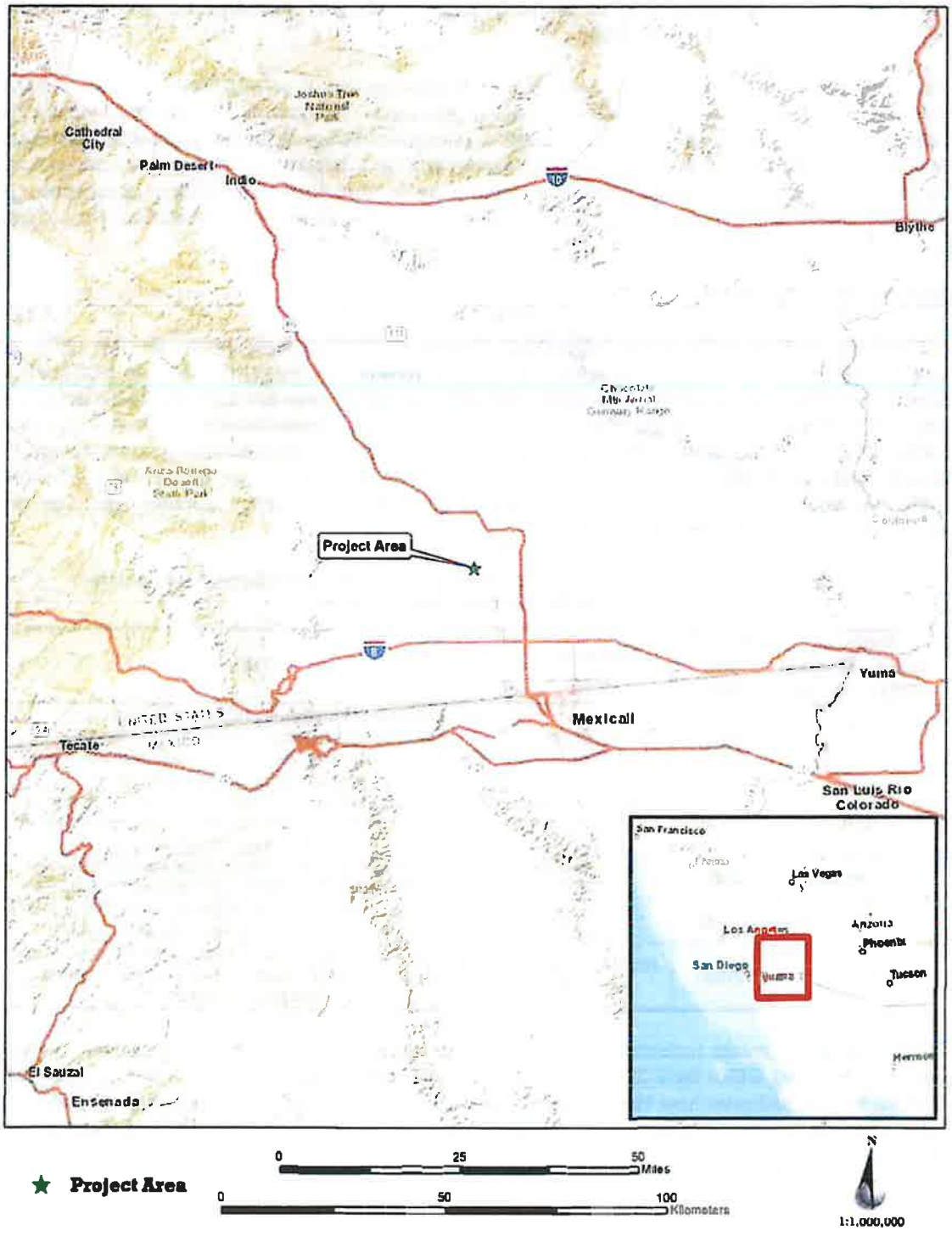

Figure 1. Project Vicinity Map, Caltrans District 11, City of Brawley, Imperial County, CA Federal Project Number BRLS 5958 (094).

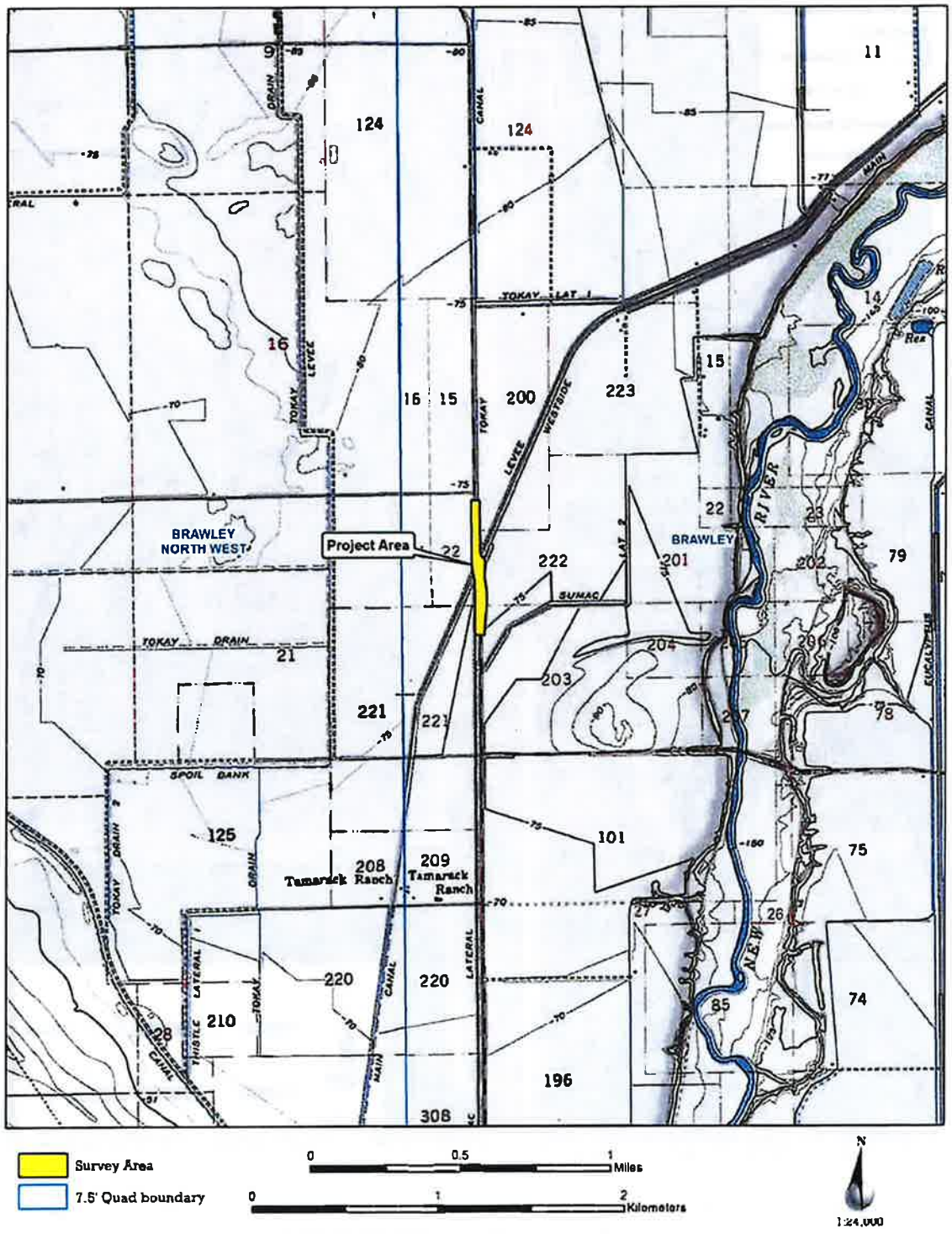

Figure 2. Study Project Location, Caltrans District 11, City of Brawley, Imperial County, CA Federal Project Number BRLS 5958 (094).

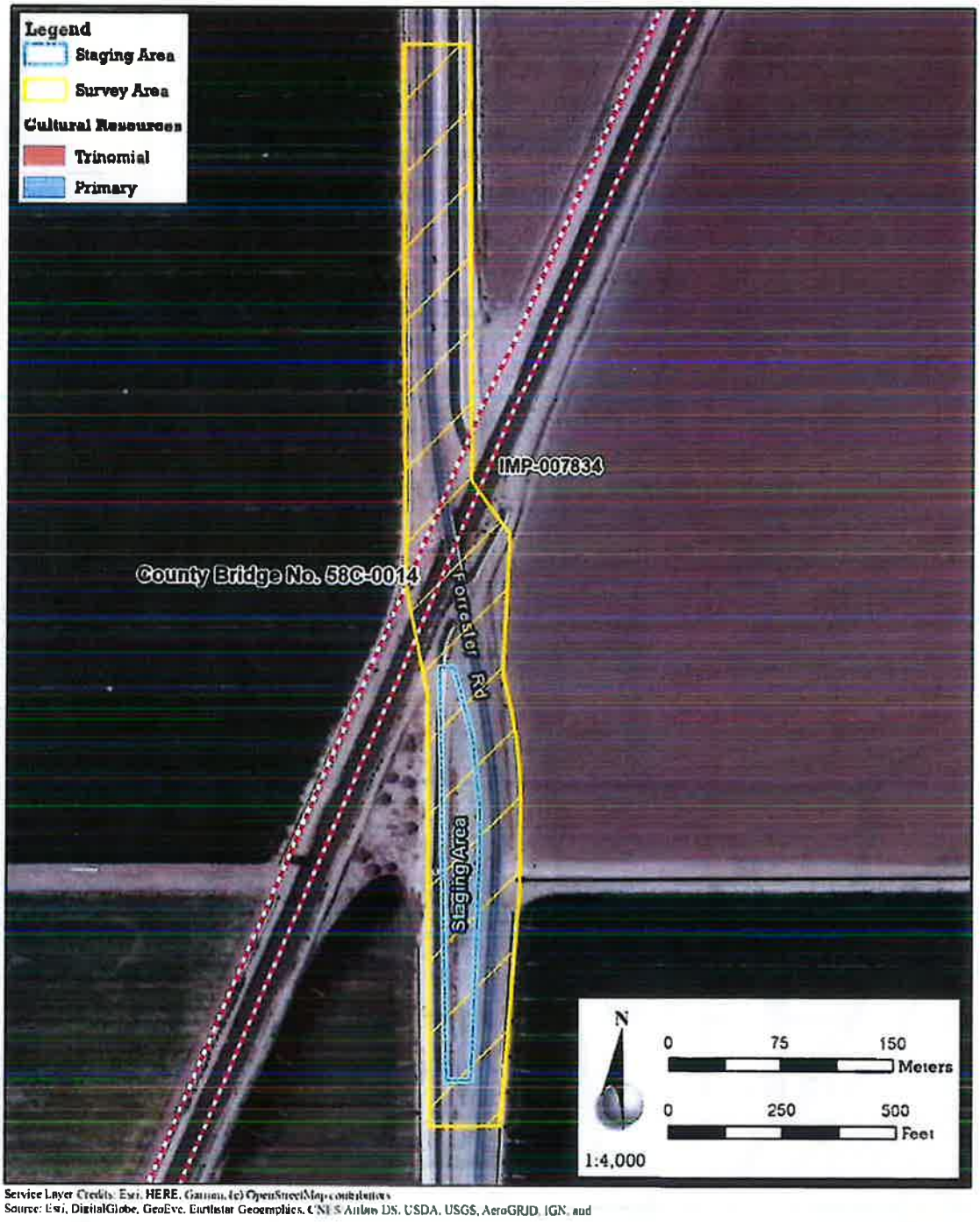

Figure 3. Survey Coverage Map, Caltrans District 11, City of Brawley, Imperial County, CA Federal Project Number BRLS 5958 (094).

SUMMARY OF NATIVE AMERICAN COORDINATION

On January 6, 2022, ASM Senior Archaeologist Sherri Andrews wrote to the California Native American Heritage Commission (NAHC) requesting a search of their Sacred Lands File (SLF) for the present Project area. The NAHC response was received on March 7, 2022, the results of which were positive; the NAHC suggested that the Ewiiaapaayp Band of Kumeyaay Indians be contacted for additional information. ASM then sent a query letter to each of the 17 tribal contacts provided by the NAHC to solicit any concerns they may have about the Project and to request any additional information that they may wish to share. On March 16, 2022, Will Micklin representing the Ewiiaapaayp Band of Kumeyaay Indians responded by email that they have no comments or concerns. No other responses have been received.

In January 2022, Imperial County began its AB 52 consultation with outreach to tribes who have previously requested consultation. Letters were sent by John Gay, the Imperial County Director of Public Works to the Fort Yuma – Quechan Indian Tribe and the Torres-Martinez Indian Tribe by certified mail on January 13, 2022. General scoping letters were sent to other potentially interested tribes on January 21, 2022.

All material to which ASM has access pertaining to Native American correspondence and consultation is included in Appendix C.

2. BACKGROUND

ENVIRONMENTAL SETTING

The Project area is located in a region of flat, developed agricultural fields, near the western edge of Imperial County, at an elevation of approximately 70 ft. below mean sea level. Prior to modern development, the location was either very arid desert with sparse natural vegetation or else it was submerged when ancient Lake Cahuilla stood at its 12-meter (m) maximum shoreline. The Colorado River is about 105 kilometers (km) to the east of the Project area, while the New River that flows north from near Cerro Prieto, Mexico, toward the Salton Sea is only approximately 1.4 km to the east.

The Project area lies within the Salton Basin in the Colorado Desert. The basin is a large fault-framed graben formed at the interface of portions of the North American and Pacific tectonic plates. The trough has been filled by immense quantities of colluvial and alluvial sediments that are in some places up to 20,000 ft. (6,000 m) deep (Morton 1977). Natural northward diversions of the Colorado River into the Salton Trough resulted in the periodic formation of an extensive freshwater lake known as Lake Cahuilla that completely submerged the locations now occupied by the modern cities of Indio, Brawley, El Centro, and Mexicali. The area is in the rain shadow of the Peninsular Ranges, and consequently its climate is generally very hot and dry. The mean maximum temperatures in July reach 107°F (42°C), and December-January mean maximum temperatures are about 70-72°F (21-22°C), while low temperatures rarely fall below freezing. Annual precipitation amounts to only 3.1 inches (in.) (7.9 cm).

ETHNOGRAPHY

Properly speaking, ethnography refers either to cultural patterns that were directly observed during the historic period, in the present case primarily during the first half of the twentieth century, or to descriptions of traditional culture as it was remembered during that period. However, used with appropriate caution, the ethnographic record provides an invaluable source of analogies and inferences concerning earlier, specifically pre-contact cultural patterns and landscapes.

The principal ethnographic sources that discussed the Colorado Desert Kumeyaay (also known as the Kamia) and their kinsmen in the adjacent Peninsular Range include studies written by Constance Goddard DuBois (Laylander 2004a), Thomas T. Waterman (1910), Edward W. Gifford (1918, 1931), Leslie Spier (1923), Philip Drucker (1937, 1941), Florence C. Shipek (1982, 1989, 1991, 1993), and William D. Hohenthal, Jr. (2001). A major study by Edward F. Castetter and William H. Bell (1951) addressed ethnobotany, agriculture, and land-use patterns among the Yumans on the Lower Colorado River, including the Kamia. Overviews and interpretations of Kumeyaay ethnography include those prepared by Frederic N. Hicks (1963), James P. Barker (1976), Katherine Luomala (1978), and Martha Knack (1981).

Other groups that may have had some involvement with this region include the Cocopa of the Colorado River delta and the Quechan just north of the Cocopa and adjacent to the Kamia on the lower Colorado River. A number of important ethnographic and ethnohistoric sources are available on these Yuman peoples (Stewart 1983). Ethnographic reports describing the Cocopa include studies by Fred B. Kniffen (1931), Gifford (1933), Drucker (1941), Castetter and Bell (1951), and William H. Kelly (1977). Ethnographic and historical syntheses were prepared by Hicks (1963) and Anita Álvarez de Williams (1974, 1975, 1983). Specifically for the Quechan, ethnographic and historical studies have been prepared by John P. Harrington (1908), Alfred L. Kroeber (1920, 1925), Drucker (1937), C. Daryll Forde (1931), Castetter and Bell (1951), Jack D. Forbes (1965), and Robert L. Bee (1981, 1983, 1989).

The Kumeyaay, Cocopa, and Quechan speak or until recently spoke languages belonging to the Yuman

linguistic family, which includes about 10 aboriginal languages in southern California, western Arizona, and northern Baja California. The Yuman family was linked with a now-extinct sister family, Cochimí, in central Baja California. On a larger geographical scale, but much more uncertainly, Yuman may have belonged to a Hokan phylum, containing languages and language families scattered around the margins of California and in western Mexico (Golla 2007; Laylander 2010). The Hokan phylum may possibly have been linked to an Amerindian group encompassing most of the native languages of the New World.

Within the Yuman family, Diegueño (i.e., Kumeyaay), Cocopa, and Quechan languages all belong to Core Yuman, which consists of the entire Yuman family with the exception of Kiliwa, the southernmost Yuman language, spoken in northern Baja California. Core Yuman in turn contains three branches: Delta-California Yuman, River Yuman, and Pai. Diegueño and Cocopa are both Delta-California Yuman languages, while Quechan is a River Yuman language. Pai is not represented in the Colorado Desert but consists of two languages: Upland Yuman (Yavapai, Walapai, and Havasupai) in western Arizona, and Paipai in northern Baja California. Because these Pai languages geographically straddle the Colorado Desert, there is reason to believe that Pai speakers also played a role in that region's prehistory (Laylander 2010, 2015).

Linguistic analyses can offer tentative clues concerning when and where ethnic divisions arose. Hokan, if it should prove to be a valid grouping, must have split apart well back in the middle Holocene, if not earlier. There is no specific reason to associate ancestral Hokan with the Colorado Desert. Yuman-Cochimí may have split apart around 2000 B.C.; based on center-of-gravity arguments, the most likely homeland for Yuman-Cochimí would have been in northern Baja California. Kiliwa may have split from Core Yuman around A.D. 1, and again northern Baja California is a likely location. The next split, between the three branches of Core Yuman, may have occurred around A.D. 500, and this was the first linguistic event that fairly certainly has implications for the prehistory of the Colorado Desert. The linguistic ancestors of the Cocopa and Kumeyaay may have separated from each other by around A.D. 1000, but the question of whether their shared homeland was most likely to have been in the Colorado Desert or west of the Peninsular Range is unresolved. Divisions within Kumeyaay/Diegueño have been categorized in various ways, but they have most commonly been treated as having created at least three distinct languages: Ipai in the north; Kumeyaay in the center and east, including a portion of the Colorado Desert; and Tipai in the south, primarily in northern Baja California. Kwatl in the far south, around Santa Catarina in Baja California, may also be distinct. Some other investigators have interpreted these differences within the Diegueño group as existing only at the level of dialects rather than languages; in any case, the separations that they represent probably began within the second millennium A.D. and most likely in the western portion of Yuman territory (Laylander 2010).

Aboriginal Kumeyaay territory stretched from the San Diego coast to the eastern edge of the Salton Basin. Within this range, the Kumeyaay in the Peninsular Range were often denominated as the Southern Diegueño or Eastern Diegueño, while the Kumeyaay in Imperial Valley are commonly known as the Kamia. In some respects, the two groups were distinct, notably in the differences in their ecological settings, the greater involvement of the Kamia in the political/military complex that was centered on the lower Colorado River, and the practice of agriculture as well as foraging for natural subsistence resources by the Kamia. However, in other respects the two groupings seem to have overlapped, notably in language and in their patrilineal kin groups (*šimuls*), and there are indications that individuals may have been able to transfer between communities belonging to the two units.

The Delta Yumans were the first Yumans to be contacted by the Spanish, beginning with Hernando de Alarcón in 1540. A variety of ethnic designations were attached to the peoples of the Colorado River delta by the Spanish explorers, who generally recognized the presence of several politically distinct entities, among which the Cocopa, Halyikwamai, and Kahwan were most frequently cited. During the period when the lower Colorado River was still essentially independent of European control, conflicts among the

Yuman groups resulted in substantial displacements of ethnic groups. The Halchidhoma apparently moved from the delta below the Gila River junction to an area higher up the Colorado River, around Blythe, in the course of the seventeenth century. By the early nineteenth century, the Halyikwamai, Kahwan, and Halchedhoma had all moved to the middle Gila River, resettling among the Maricopa. Of the Delta Yumans, only the Cocopa have remained in their contact-era homeland (Kelly 1977:4-10; Laylander 2013; Spier 1933).

The ethnographic record indicates that native groups in and around the Colorado Desert exploited a wide range of plant, animal, and mineral resources. Of key importance was the resource of water. This was available at springs, within semipermanent water courses, or in *tinajas* (natural tanks).

The plant resources used by the western Kumeyaay and by neighboring groups in similar settings, including the Luiseño and Cahuilla, have been discussed in detail by several investigators (Bean and Saubel 1972; Drucker 1937, 1941; Hedges 1986; Hicks 1963; Hohenthal 2001; Shipek 1991; Sparkman 1908; Wilken 2012). The uses of both natural plant resources and agricultural crops by groups living on the lower Colorado River and its delta, including the Kamia, Cocopa, and Quechan, have also been discussed (Castetter and Bell 1951; Drucker 1937, 1941; Forde 1931; Gifford 1931, 1933; Hicks 1963; Kelly 1977).

The range of plants exploited for food, medicine, and materials was extensive. At least 161 plant species have been reported ethnographically as having been used by the Kumeyaay. Among the western Kumeyaay, acorns (*Quercus* spp.) were perhaps the most important single food source. Optimal locations for acorn harvesting lay west of the Colorado Desert, in the higher elevations of the Peninsular Range. Pine nuts (*Pinus* spp.), which were most abundant in the pinyon forests of the Sierra Juárez located just to the south of the U.S./Mexico border, were probably also an important focus for subsistence activities. Along the margin of the desert, agave (*Agave* spp.) was a key resource, while mesquite was important at lower elevations. Many other plants were valued for the nutritional contributions from their seeds, fruits, roots, stalks, or greens. Seasonally available subsistence resources that could be stored for extended periods were particularly important. Notable material sources for the manufacture of structures, tools, and clothing included agave, yucca (*Yucca* spp.), and willow (*Salix* sp.). Plant species with actual or supposed medicinal properties are particularly numerous in Kumeyaay ethnobotany. Special mention may go to coyote tobacco (*Nicotiana attenuata*) and jimsonweed (*Datura* sp.).

The importance and the geographical range of agriculture or horticulture in pre-contact southern California have been debated. Investigators agree that floodplain agriculture played an important role on the lower Colorado River and its southern delta, accounting for 30 percent or more of the aboriginal diet (Castetter and Bell 1951). This agriculture focused primarily on corn (*Zea mays*), tepary beans (*Phaseolus acutifolius*), and squash (*Cucurbita* spp.), but it included other crops as well. There are good indications, although they are not entirely conclusive, that Kamia who lived on the flood channels extending west and northwest from the Colorado River also practiced pre-contact agriculture (Gifford 1931).

Animal resources, although they were not as numerous and were arguably not as important as plant resources, also played prominent roles in Kumeyaay subsistence and material culture. Ethnographic accounts attest to the use of at least 16 species of land mammals, 13 species of birds, four reptile species, and two species of land invertebrates. Significant large game animals included mule deer (*Odocoileus hemionus*), bighorn sheep (*Ovis canadensis*), and pronghorn (*Antilocapra americana*). Evidence from ethnography and archaeology is in agreement that small mammals, notably black-tailed jackrabbit (*Lepus californicus*), rabbit (*Sylvilagus* spp.), and woodrat (*Neotoma* sp.), were also important. The only domesticated animal, the dog (*Canis familiaris*), was used as a hunting aide.

Ethnographic information on the exploitation of mineral resources is generally less extensive than

information about the use of biological resources. From archaeological evidence, it is known that lithic resources of quartz and volcanic rocks were commonly available in much of the Kumeyaay territory. Other raw materials, such as obsidian, cryptocrystalline silica, and steatite occur in more localized areas. Ethnographic contributions to understanding aboriginal cultural landscapes have been made through the identification of some of the specific sources of rocks and minerals used for tools, ceramics, pigments, and salt (Gifford 1931:24-25; Heizer and Treganza 1944; Hohenthal 1950, 2001).

The utilitarian material culture of the Kumeyaay and neighboring groups was not highly elaborate, by worldwide standards. However, it included a fair range of materials and techniques to support the procurement, processing, transportation, and storage of resources and for personal protection from the elements.

In contrast to the western Kumeyaay, the Kamia were organized into 10 or 11 exogamous patrilineages that were not localized. Many Kumeyaay living to the west were also members of these same lineages, leading Gifford (1918, 1931:301) to conclude that the Kamia were, in essence, desert Kumeyaay who had assimilated many aspects of River Yuman culture. Lineage identification with specific locations was probably related to the settlement preferences of individual families that moved as lineage segments, rather than indicative of lineage territoriality. Gifford (1931:14) suggested that a greater degree of lineage localization may have existed in the past but that it was inhibited by the mobility requirements for exploiting the shifting arable agricultural lands. As most of the lineages' totemic associations were with either the wildcat or the coyote, which were the totems of Cahuilla, Cupeño, and Serrano moieties, the Kamia may have had elements of a moiety system, although the Kamia were exogamous by lineage and not by totemic association. The economic unit was the extended family household consisting of a man and his wife or wives, their parents, and their children. Probably as a result of close contacts with the River Yumans, the Kamia maintained a greater degree of "tribal" identification than did their Kumeyaay kinsmen to the west, recognizing a tribal "chief" over all of the lineages, an achieved rather than ascribed status and with a role focusing on the organization of economic activities, warfare, and diplomacy.

Among the Cocopa, several essentially independent bands were remembered as existing within the delta, with inherited patrilineal leaders, but no leaders or institutions at the national level were recognized (Kelly 1977:78-82). The Cocopa were heavily involved in the system of alliances and warfare among the peoples of the lower Colorado River, being allied with the Maricopa and hostile to the Quechan and Mohave. However, the degree of nation-level political unification among the Cocopa seems to have been lower than that among the Quechan, or perhaps even than that among the Kamia.

River Yuman groups were organized into nonlocalized, patrilineal, exogamous, totemic clans or sibs. Each clan or *šimuł* was named after a plant, animal, or natural object, but this name was borne only by female members (Gifford 1918). There were no clan leaders, and the clans did not have special ceremonial or sociopolitical functions. Clan members were not localized at specific rancherias, which instead contained members of several different clans. Each localized rancheria or band recognized a leader (*pi'pa taxa'n*) who was called upon to settle disputes, to be responsible for the social and economic welfare of his people, to decide on seasonal moves, and to determine when to relocate the entire rancheria. His power was quite restricted, and he had limited influence. His position was achieved through dreaming, force of character, and demonstrated ability. Each tribal group also recognized a paramount chief (*kwoxot*) who might rise from the ranks of the rancheria leaders. This position may have become more important in post-contact times under the influence of Euro-American political and military institutions. Prowess in warfare was not required of the chief; indeed, the *kwoxot* was expected to remain in the village and refrain from participating in battles. Special war leaders (*kwanami*) were recognized (Bee 1983; Forde 1931).

Hicks (1963, 1974) hypothesized that all Yuman clans at one time were patrilocal and had ascribed band

territories. Like the western Kumeyaay, groups expanded or contracted their band territories in the face of shifting food abundance or population size. They also had the ability to fuse into larger, multi-band settlement groups or to fission into dispersed residence units when environmental conditions demanded, but still within a system of clan-specific territories. Exogamous marriage rules also permitted friendly accommodation of guest-residents if one clan experienced localized environmental stresses. It was a response to basic ecological adaptations to horticulture on the shifting arable alluvium of the Colorado River's floodplain that led to the de-localization of River Yuman clans, because limited farm land that shifted in size and configuration after each flood cycle demanded more residential mobility and the need to move as circumstances dictated within the larger tribal territory.

World view, ideology, religion, ceremony, art, and recreation are terms that can be applied to aspects of culture that are not as directly utilitarian as subsistence and social organization. Nonetheless, these aspects may also serve important adaptive functions, and they may be intimately intermixed or combined with more strictly utilitarian aspects of culture.

While many nonutilitarian elements are likely to be nearly invisible in the archaeological record, others are addressable, particularly with the help of clues provided by the ethnographic record. For example, mortuary practices are attested both archaeologically and ethnographically, and they may have significant implications from a landscape perspective (e.g., Laylander 2011). On the other hand, rock art is a prominent element archaeologically but with little ethnographic testimony specifically for the Kumeyaay (but cf. Hedges 1970:78). Mountain peaks figure prominently in Yuman myths as well as in some other ethnographic contexts (e.g., Shipek 1985), but there is little or no archaeological confirmation for their role within pre-contact landscapes.

PRE-CONTACT PERIOD

Archaeological investigations in southern California have documented a diverse range of human adaptations extending from the late Pleistocene up to the time of European contact (e.g., Erlandson and Colten 1991; Erlandson and Glassow 1997; Erlandson and Jones 2002; Jones and Klar 2007; Moratto 1984; Wallace 1962). To describe and discuss this diversity, local investigators have proposed a variety of different chronologies and conceptual categories (periods, horizons, stages, phases, traditions, cultures, peoples, industries, complexes, and patterns), often with confusingly overlapping or vague terminology.

The pre-contact record of the Colorado Desert is most frequently divided chronologically into three or four major periods. An Early Man stage, perhaps dating back tens of thousands of years, has been proposed. More generally accepted divisions include a Terminal Pleistocene/Early Holocene period (ca. 12,000-5000 B.C.) (Paleo-Indian stage; Clovis and San Dieguito patterns), a Middle/Late Holocene period (ca. 5000 B.C.-A.D. 500) (Archaic stage; Pinto, Gypsum, and Amargosa patterns), and a Late Prehistoric period (ca. A.D. 500-1770) (Archaic stage; Yuman, Patayan, or Hakataya pattern).

Early Man: Human Occupation Prior to 12,000 B.C.

The antiquity of human occupation in the New World has been the subject of considerable interest and debate for more than a century. At present, the most widely accepted model is that humans first entered portions of the western hemisphere lying to the south of Alaska between about 15,000 and 12,000 B.C., either along the Pacific coastline or through an ice-free corridor between the retreating Cordilleran and Laurentide segments of the continental glacier in Canada, or along both routes. While there is no generally accepted evidence of human occupation in southern California prior to about 11,000 B.C., ages estimated at 48,000 years and even earlier sometimes have been reported (e.g., Bada et al. 1974; Carter 1980). However, despite intense interest and the long history of research, no widely accepted evidence of human occupation of North America dating prior to about 12,000 B.C. has emerged.

Claims for Early Man discoveries in southern California have generally been based either on the apparent crudeness of the lithic assemblages that were encountered or on the finds' apparent Pleistocene geological contexts (Carter 1957, 1980; Minshall 1976, 1989; Reeves et al. 1986). The amino acid racemization technique was used in the 1970s and early 1980s to assign Pleistocene ages to several coastal San Diego sites (Bada et al. 1974), but the technique's findings have been discredited by more recent accelerator mass spectrometry (AMS) radiocarbon dating (Taylor et al. 1985).

A Malpais pattern has been proposed as being represented by archaeological materials in the California deserts that supposedly date between ca. 50,000 and 10,000 B.C. (Begole 1973, 1976; Davis et al. 1980; Hayden 1976). The term Malpais was originally used by Rogers (1939, 1966) for ancient-looking cleared circles, tools, and rock alignments that he subsequently classified as San Dieguito I. The designation of Malpais continued to be applied to choppers and scrapers with heavy desert varnish and lacking any associated projectile points, found on desert pavements of the Colorado, Mojave, and Sonoran deserts. Although few would question that most of the Malpais specimens are genuine humanly made artifacts, methods for dating them remain extremely uncertain and have been challenged on several grounds (McGuire and Schiffer 1982:160-164).

In the 1970s, arguments for very early settlement of the Colorado Desert focused in particular on the Yuha Desert (Childers 1977; Minshall 1976). The radiocarbon dating of a cairn burial, "Yuha Man," to over 18,000 B.C. on the basis of caliche deposits on the cairn was vigorously debated (Bischoff et al. 1976, 1978, 1979; Childers 1974; Payen et al. 1978, 1979; Rogers 1977). More reliable dates based on the accelerator mass spectrometry (AMS) radiocarbon method applied to human bone fragments now place the burial well within the Holocene, at about 3000 B.C. (Taylor et al. 1985). An age in excess of 50,000 years was also claimed for reported flaked stone tools exposed by erosion in Yuha Pinto Wash, but the age of the materials and their status as artifacts have been questioned (Childers and Minshall 1980; Moratto 1984).

Terminal Pleistocene / Early Holocene Period (ca. 12,000-5000 B.C.)

The earliest chronologically distinctive archaeological pattern recognized in most of North America is the Clovis pattern. Dated to around 11,500 B.C., Clovis assemblages are distinguished by fluted projectile points and other large bifaces, as well as extinct large mammal remains. Fluted points have reportedly been found in the Yuha Desert, Cuyamaca Rancho State Park, Ocotillo Wells, Lost Valley, and Chuckwalla Valley, although not yet in independently dated contexts (Davis and Shutler 1969; Kline 2014; Kline and Kline 2007; Rondeau et al. 2007).

In the Colorado Desert, some investigators routinely assigned most of the rock features, cleared circles, and lithic assemblages that lack associated ceramics to the San Dieguito pattern, which is now generally dated to the early Holocene. Rogers first distinguished the San Dieguito pattern in western San Diego County, based initially on surface surveys and subsequently on excavations at the C. W. Harris Site (SDI-149). His extensive surveys also identified the complex in the southern California deserts (Rogers 1939, 1966).

San Dieguito lithic technology was based on primary and secondary percussion flaking of cores and flakes. The pattern's projectile points included forms with long, wide stems and weak shoulders (sometimes termed "Great Basin Stemmed," or "Lake Mojave" and "Silver Lake" types). Some investigators have considered flaked crescents to be diagnostic of the early Holocene period (e.g., Jertberg 1978, 1986). A variety of forms for edge tools ("scrapers" and "scraper planes") have been distinguished, although it is open to question whether or not this variability in form was intentionally patterned. Milling implements seem to be either absent or conspicuously rare in early Holocene assemblages. Faunal

remains and human burials are not documented. One interpretation has been that the San Dieguito pattern reflects a hunter-gatherer adaptation consisting of small, highly mobile bands exploiting both small and large game and collecting seasonally available wild plants, but perhaps not harvesting hard seeds and nuts (Rogers 1966).

Rogers proposed to distinguish three successive San Dieguito phases, each characterized by the addition of new, more sophisticated tool types and manufacturing techniques to the preexisting tool kit. San Dieguito I and II tools included bifacially and unifacially reduced choppers and chopping tools, concave-edged scrapers (spokeshaves), bilaterally notched pebbles, and scraper planes. Appearing in the San Dieguito II phase were finely made blades, smaller bifacial points, and a larger variety of scraper and chopper types. The San Dieguito III tool kit was appreciably more diverse, with the introduction of fine pressure flaking; tools included pressure-flaked blades, leaf-shaped projectile points, scraper planes, plano-convex scrapers, crescents, and elongated bifacial knives (Rogers 1939, 1966; Warren 1967; Warren and True 1961). Various attempts have also been made to seriate cleared circles on desert pavement into these phases, but without convincing success (Pendleton 1986). Because of the purely surface character of most desert sites and the scarcity of good chronological evidence, it has been difficult to test the validity of Rogers's San Dieguito I, II, and III phases. Some of the variations may have been present contemporaneously, in response to particular functional or ecological requirements. Most subsequent investigators have rejected the use of these phases (Warren et al. 2008).

Middle / Late Holocene Period (ca. 5000 B.C. – A.D. 500)

The Pinto, Gypsum, and Amargosa patterns (which have also been designated in various other ways) characterize the middle Holocene and the early portion of the late Holocene in the California deserts, while the La Jolla, Pauma, Encinitas, and Campbell patterns apply to coastal and inland areas to the west. These patterns have been interpreted as regional specializations within the general hunting and gathering adaptations that characterized the long period between ca. 5000 B.C. and A.D. 500. The patterns are better documented and apparently occurred more frequently in the Great Basin, the Mojave Desert, and parts of the Sonoran Desert east of the Colorado River than in the Colorado Desert. Few of the period's large projectile points ("Pinto," "Gypsum," "Elko," and other types) have been identified on the desert pavements in the Colorado Desert, although that situation is beginning to change as the number of archaeological investigations in the region increases (e.g., Cleland 1999). Some sites assigned to the late portion of this period are known, indicating that occupations occurred along the boundary between the low desert and the Peninsular Range and in other favored habitats (McDonald 1992; Schaefer and Laylander 2007).

It has been suggested that the environment of the California deserts was unstable and inhospitable during this period, particularly during the so-called Altithermal period (Holocene Climatic Optimum) between about 5000 and 2000 B.C., and that these conditions forced mobile hunter-gatherers to move to more hospitable regions (Crabtree 1981; Schaefer 1994; Wilke 1976). The paleoenvironmental data do not have the resolution to detect drastic short-term events during this period. If Lake Cahuilla was present, it may have mitigated any Altithermal effects on human occupation in the Colorado Desert, but its presence is doubtful.

Several Colorado Desert sites belonging to this period have been excavated in recent years. The most substantial site is Indian Hill Rockshelter in Anza-Borrego Desert State Park. At that site, 1.5 m of cultural deposits were excavated below a Late Prehistoric (post-A.D. 500) component (McDonald 1992). Particularly significant were 11 rock-lined cache pits and numerous hearths, indicative of either a residential base or a temporary camp where food storage was integral to the settlement and subsistence strategy. Also recovered were numerous expanding-stem, concave-base ("Elko Eared") dart points, flaked lithic tools, and milling tools, as well as three inhumations, one of which was radiocarbon-dated to 4070

±100 B.P. (calibrated to a two-sigma range between 2891 and 2347 B.C.).

Two rock-lined pits similar to those at Indian Hill Rockshelter, along with an accompanying assemblage assignable to this period, were excavated at a small rock shelter in Tahquitz Canyon near Palm Springs (Bean et al. 1995). The small number of artifacts at the site suggested that they represented strategically stored food processing equipment used by a small, mobile group.

Several important sites in the northern Coachella Valley have been documented (Love and Dahdul 2002). Deeply buried midden deposits with clay-lined features and living surfaces, cremations, hearths, and a rock shelter deposit have been found at various sites in association with radiocarbon dates ranging from before 1000 B.C. to A.D. 700. Radiocarbon dates of almost 1000 B.C. and associated bird and fish bone now confirm an early Lake Cahuilla occupational horizon, as well as early non-lacustrine phases.

Larger habitation sites from this period remained elusive in the Colorado Desert until 2006, when a series of deeply buried midden deposits and some house features were discovered under alluvial fan and dune formations at the northern end of the Coachella Valley, at Seven Palms near Desert Hot Springs (Mariam Dahdul, personal communication 2006). These findings bring Colorado Desert cultural history more into line with comparable patterns in the Mojave Desert and the southwestern Great Basin during this period.

Early projectile points in Imperial County have generally been reported only as isolates on desert pavements, but a recent archaeological inventory at the Salton Sea Test Base produced a cluster of early projectile points, including "Lake Mojave," "Pinto/Gatecliff," and "Elko" forms, along with two eccentric crescents, scattered among Late Prehistoric or protohistoric sites on the bed of Lake Cahuilla at elevations around 30 m below sea level (Apple et al. 1997; Wahoff 1999). If these points were deposited there in the same period as their manufacture, as the investigators suggested, then presumably they had escaped burial by lake sediments or were subsequently re-exposed. An alternative explanation may be that the points were collected from earlier sites elsewhere and redeposited by later occupants. Several large points have also been reported in the Truckhaven area. Direct evidence of an early occupation comes from the Truckhaven flexed burial (IMP-109), found under a cairn and dated to 5790 ±250 B.P. (calibrated to the two-sigma range between 5295 and 4070 B.C.) (Taylor et al. 1985; Warren 1984).

The emerging picture of occupation in the Colorado Desert during the later portion of this period shows mobile hunter-gatherer bands with atlatls for hunting and milling stones for seed and nut processing, operating out of a limited number of base camps in optimal areas on the boundaries of the Salton Basin and on the shoreline of Lake Cahuilla. This pattern may be viewed as a cultural precursor of the period after A.D. 500, although linguistic data and tribal origin stories suggest that demographic displacements also occurred within the final pre-contact period (Laylander 2010; Schaefer and Laylander 2007; Sutton 2009).

Precontact (Late Prehistoric ca. A.D. 500-1770)

Sites in the Colorado Desert and Peninsular Range dating after ca. A.D. 500 are more numerous than those known from any earlier pre-contact period. The major innovations in material culture during these centuries included the introduction of the bow and arrow, which probably occurred shortly after A.D. 500; the beginning of substantial pottery production using the paddle-and-anvil technique, perhaps around A.D. 800; the substitution of cremation for inhumation as the primary method of postmortem treatment at a similar period; and the introduction of floodplain agriculture along the Colorado River and in its delta, possibly including Imperial Valley, which has been largely invisible archaeologically but may possibly also date from around the same time. Cultural patterns within this period have been variously labeled as Patayan I/II/III (Colton 1945; Hargrave 1938; McGuire and Schiffer 1982; Waters 1982a), Yuman I/II/III (Rogers 1945), and Hakataya (Schroeder 1979).

Ceramics and agriculture probably reached the region from the east or the southeast, either through the Hohokam communities in the middle Gila River valley or directly from Sonora in northwestern Mexico (McGuire and Schiffer 1982; Rogers 1945; Schroeder 1975, 1979). Bow-and-arrow technology may have diffused south from the Mojave Desert (Yohe 1992, 1998).

Ceramic analysis has provided the basis for attempts to distinguish finer chronological subdivisions within this period. Both Rogers (1945) and Michael R. Waters (1982b) proposed sequences of pottery types and pottery traits as diagnostic of three distinct phases: Yuman/Patayan I, prior to ca. A.D. 1000, Yuman/Patayan II, between ca. A.D. 1000 and 1500, and Yuman/Patayan III, after ca. A.D. 1500. The scheme was founded, in part, on a belief that Lake Cahuilla had been present between about A.D. 1000 and 1500 but had been absent both before and after those limits. However, more recent research has demonstrated that the lake was not continuously present throughout the period A.D. 1000-1500 and that additional lake stands occurred both prior to A.D. 1000 and subsequent to A.D. 1500. The replicability of ceramic classifications and the chronological significance of some of the ceramic types and traits have also been questioned (Laylander 1997; Schaefer 1994; Schaefer and Laylander 2007). These findings in turn cast doubt on the viability of the Yuman/Patayan I/II/III phase distinctions.

The diversity of sites and assemblages associated with Lake Cahuilla indicates considerable variability in late pre-contact social and ecological adaptations to the lake (Dahdul 2013; Wilke 1978). The number of house pits at fish camps ranged from one to more than a dozen, perhaps reflecting differences in the number of households in residence at any one time. Fish traps ranged from isolated features to long lines that are suggestive of cooperative fishing ventures. Archaeological excavations of house pits indicate that some have well-developed middens and diverse artifact types, suggestive of extended occupations, while others have only sparse artifacts in association, suggesting use during short-term fishing expeditions. Faunal assemblages vary from some that are largely limited to the bones of fish or migratory water birds to others that contain more diverse resources, including rabbit and large mammal bones. This variability in site types and assemblage contents has yet to be correlated in a systematic manner with other variables, such as the recessional stages of Lake Cahuilla (reflected in site elevations), localized geography and paleoenvironments around the lake's perimeter, or the ethnicity of the occupants (Schaefer 2000a; Schaefer and Laylander 2007).

Mobility was an important element in this pattern, probably involving frequent travel between Lake Cahuilla and areas outside of the Salton Basin when the lake was present. The numerous trail systems visible on desert pavement surfaces throughout the Colorado Desert attest to long-range travel to reach special resource collecting zones and ceremonial locales, as well as trading expeditions and possibly warfare. Pot drops, trailside shrines, and other evidence of transitory activities are sometimes found in association with these trails (McCarthy 1993). Trade and travel are also seen in the distribution of localized resources such as obsidian from Obsidian Butte, wonderstone from the south end of the Santa Rosa Mountains and from Cerro Colorado just south of the international border in northern Baja California, soapstone presumed to have come from the mountains to the west, marine shell from both the Gulf of California and the Pacific coast, and ceramic types that were not locally manufactured. The Elmore site (IMP-6427) near Kane Springs contained evidence of *Olivella* shell bead manufacturing and other shell processing, trade, and possibly cultural connections with delta Yumans who may have been displaced during Lake Cahuilla's infillings (Laylander 1997, 2006; Rosen 1995; Schaefer 2000b). Evidence of metate manufacturing is documented at several sites in the Superstition Mountain area, where outcrops of Imperial Formation sandstone afforded a ready local material for milling equipment (Schaefer 1988).

HISTORY

European exploration of the Colorado Desert began in 1540, with the arrival on the lower Colorado River of offshoots from Coronado's *entrada* into the American Southwest. Hernando de Alarcón directed a seaborne expedition to the head of the Gulf of California and up the lower Colorado River at least as far as the present Yuma, Arizona (Hammond and Rey 1940). Melchior Díaz headed an overland party from Sonora that reached and crossed the Colorado River, but his expedition is poorly documented and the extent of his travels remains uncertain (Forbes 1965). Juan de Oñate led an expedition from New Mexico that followed the Colorado River to its mouth in 1604-1604 (Hammond and Rey 1953; Laylander 2004b).

During the nearly two centuries that followed, it is possible that influences, such as an awareness of alien technologies or the introduction of diseases, may have reached the Colorado Desert overland from earlier outposts of the Spanish empire in Baja California or Sonora. However, the historic period proper in the western Colorado Desert began in the 1770s. In 1769, multiple seaborne and overland expeditions under the leadership of the soldier Gaspar de Portolá and the Franciscan missionary Junípero Serra reached San Diego from Baja California. A probe eastward from the west coast under Pedro Fages in 1772 reached the western edge of the desert. However, the expeditions of Francisco Garcés in 1771 and Juan Bautista de Anza in 1774-1776 introduced a European presence into the heart of the Colorado Desert (Bolton 1930; Coues 1900).

During the Spanish (1770-1821), Mexican (1821-1846) and early American (1846-1900) periods, the Colorado Desert remained marginal to developments elsewhere in southern California, serving primarily as a travel connection with the east. This link was interrupted in 1781, when an attempted Spanish colonization of the lower Colorado River provoked a Quechan revolt and massacre, closing the eastward connection for a time (Forbes 1965). U.S. annexation and the gold rush in northern California greatly strengthened eastern connections, which in time were reinforced by the construction of railroad and highway links.

Imperial Valley began its development as a major agricultural region in the early twentieth century with the opening of an irrigation aqueduct from the Colorado River. The accidental creation of the Salton Sea in 1905-1907 imperiled and interrupted this development but did not stop it. Throughout the twentieth century, additional urban, military, recreational, and conservation uses of the Colorado Desert all became increasingly important.

3. FIELD METHODS

Pedestrian survey was conducted in no greater than 15-m-wide transects, but the specific survey method employed in any given location was determined by ground visibility (Figure 4). During the survey, visibility was estimated on a scale of 0-100 percent: 0-25 percent, poor; 26-50 percent, fair; 51-75 percent, good; 76-100 percent, excellent. Portions of the survey coverage area for the Project were excluded from intensive survey due to ground visibility being almost completely obscured by either asphalt or canal. Areas of poor to zero surface visibility were not surveyed because a pedestrian survey would not result in identification of cultural resources in this setting. Road cuts and other visible soils were carefully examined for cultural resources.

Navigation in the field was conducted using handheld GeoExplorer Trimble units with sub-meter accuracy; any points taken were recorded in NAD 83 Universal Transverse Mercator (UTM) coordinates. Photographs and field notes were taken to document the conditions present in the survey area and to document the results of the survey.

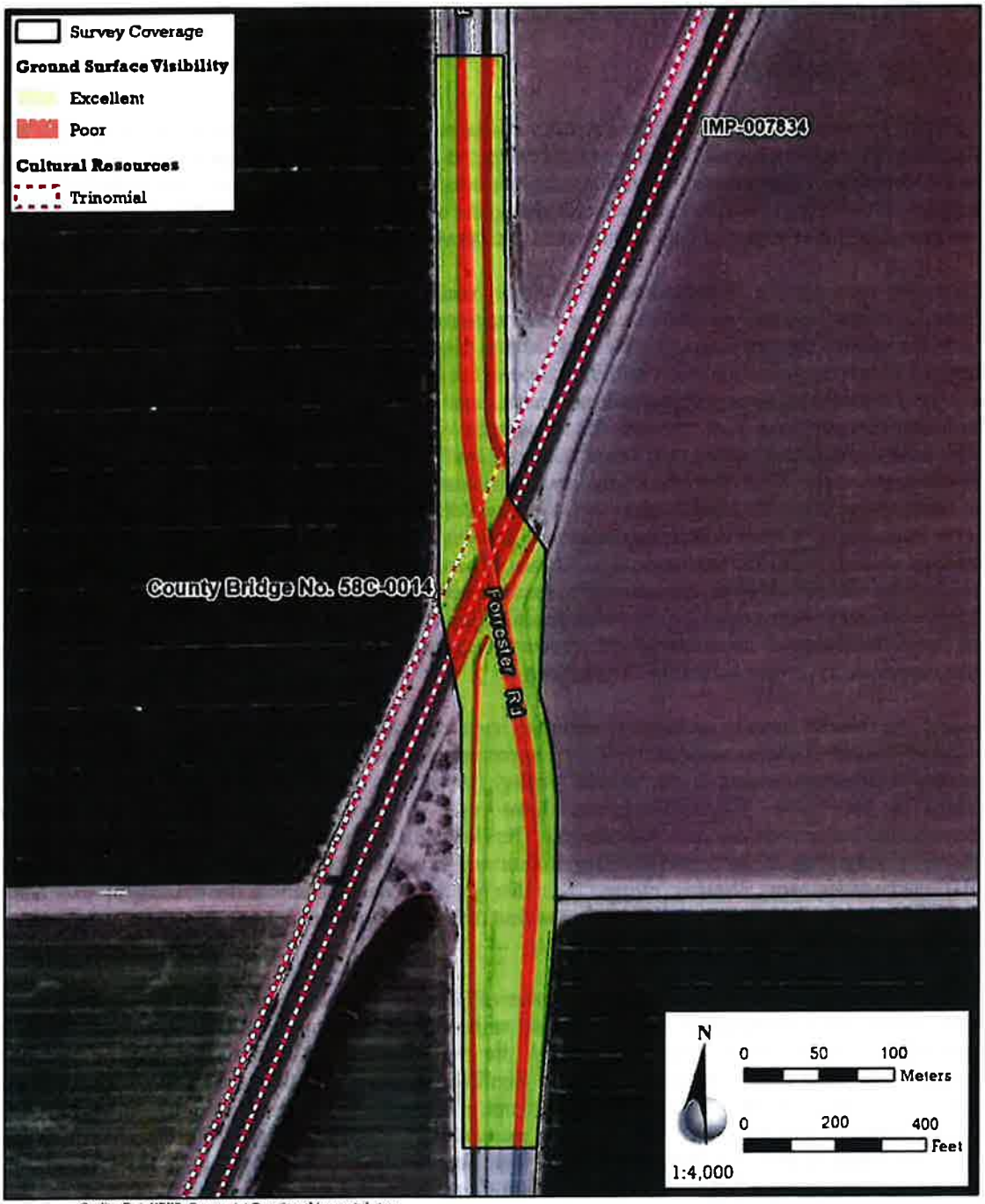

Figure 4. Survey coverage map showing ground surface visibility.

4. STUDY FINDINGS AND CONCLUSIONS

SURVEY RESULTS

The entire survey coverage area for the Project was examined for cultural resources on January 27, 2022. The pedestrian survey covered the sides of the bridge, the bridge approaches, construction laydown areas, and all other areas where ground-disturbing activities would occur. The survey was conducted in transects no greater than 15 m apart. Any exposed soils along the canal banks and walls visible above the waterline were examined for evidence of cultural materials. No previously undocumented resources were identified.

The survey area can be characterized as a highly modified and developed landscape. As shown on Figure 5, surface visibility across the survey coverage area ranged from excellent to poor. The visibility within the paved Forrester Road, the Westside Main Canal, and the associated Sumac Lateral Canal was poor (0-25 percent ground surface visibility). Ground surface visibility was excellent (76-100 percent) in the areas adjacent to Forrester Road and the canals, and within a small section of graded farm road that intersects Forrester Road from the east. The topography within the survey coverage area is generally flat, with raised embankments along the Sumac Lateral Canal to the west of Forrester Road where it parallels the road south of the Westside Main Canal, and to the east of Forrester Road where it parallels the road to the north of the Westside Main Canal. The dirt shoulder of Forrester Road exhibits moderate levels of highly fragmented modern debris consistent with the heavily trafficked roadway and active agricultural activities to the immediate east and west. At the time of survey, large stacks of hay bales and a farm vehicle were staged within a wide shoulder area between Forrester Road and the Sumac Lateral Canal. Sparse, low weeds are present on the road shoulder, and small clumps of arrowweed (*Pluchea sericea*) and tamarisk (*Tamarix ramosissima*) are present along the banks of the Westside Main Canal, but no other vegetation is present within the Project area.

During the current survey, previously recorded resource IMP-7835, the Westside Main Canal, was relocated (Figure 6). Constructed in 1907, the approximately 40-mi.-long Westside Main Canal is part of the earliest irrigation system in the Imperial Valley. It was later integrated into the All-American Canal during the late 1930s. The All-American Canal runs in an east-west direction just north of the international border with the U.S. and Mexico. The Westside Main Canal joins the All-American Canal near the western edge of the Imperial Valley and serves the western part of the Imperial Irrigation District (IID) water service area. Water is released from the Westside Main canal into the heading of each lateral canal. From the lateral canals, zanjeros measure and divert the required amount of water from the lateral canal through individual customer delivery gates.

Documentation for IMP-7834 includes of a number of DPRs addressing disparate segments of the overall canal as they were encountered in the course of various unrelated projects. Some portions of the canal have been recommended eligible for listing in the NRHP and the California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in the development of the Imperial Valley while other segments have been recommended not eligible due to lack of integrity. However, most records conclude that the canal is a significant resource and eligible for the NRHP as part of the All-American Canal system. Caltrans recommends that the Westside Main Canal, along with the adjacent delivery system associated with the Westside Main Canal (Sumac Lateral Canal), is eligible at the local level under NRHP/CRHR Criterion A/1 for its significance in association with the *Development of Irrigated Agriculture in the Imperial Valley*. The canal was integral to the development of irrigated commercial agriculture since its construction in the early 1900s. In 2001, the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All-American Canal was eligible for the NRHP and by extension, the Westside Main Canal is also recommended eligible under Criterion A.

Also located within the survey coverage area for the Project is the associated Sumac Lateral Canal. Both the segment of the Westside Main Canal and the Sumac Lateral Canal within the current survey coverage area are recommended to be considered eligible for the NRHP as documented in the AOE prepared for the Project (AOE 2022). Bridge No. 58C-0114, slated for demolition by the Project, was constructed in 1950 and has been evaluated by Caltrans as not eligible for the NRHP (Caltrans 2016) (see Figure 6). No archaeological sites or pre-contact period cultural resources were identified during the pedestrian survey of the coverage area for the Project.

Figure 5. Overview of the Project area from the southeast corner facing north, showing portions of the survey coverage area with poor and excellent visibility.

Figure 6. View of CA-IMP-7834, Westside Main Canal from the central portion of the survey coverage area facing south, also showing Bridge No. 58C-0114.

CONCLUSIONS

The field survey and records search identified one previously recorded cultural resource within the Project coverage area, a segment of IMP-7834, the Westside Main Canal. The associated Sumac Lateral Canal was also identified within the survey area. Constructed in 1907, the Westside Main Canal is part of the earliest irrigation system in the Imperial Valley and was later integrated into the All-American Canal during the late 1930s. Both of these resources are recommended to be considered eligible for the NRHP as documented in the AOE prepared for the Project (AOE 2022). No pre-contact or archaeological resources have been identified within the Project footprint. Some new ground disturbances are anticipated in connection with the Sumac Lateral Canal culvert. However, the potential for the presence of previously undocumented cultural resources is considered to be low based on prior disturbances within the survey coverage area, as well as the results of current and prior pedestrian surveys of the immediate Project area, the absence of resources in the area surrounding the Project area, and lack of concerns from local Native American tribes.

UNIDENTIFIED CULTURAL MATERIALS

If previously unidentified cultural materials are unearthed during construction, work should be halted in that area until a qualified archaeologist can assess the significance of the find. Additional archaeological survey will be needed if Project limits are extended beyond the present survey limits.

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APPENDICES

APPENDIX A

Resumes of Key Personnel

APPENDIX B

SCIC Records Search Confirmation

APPENDIX C

NAHC and Other Native American Correspondence

APPENDIX A

Resumes of Key Personnel

Sherri Andrews, M.A., J.D., RPA
Senior Archaeologist

Archaeology • History • Ethnography • Architectural History

Total Years of Experience: 24

Education:

J.D.	2012/Law/Concord Law School (honors)
M.A.	2000/Archaeology/California State University, Northridge (honors)
B.A.	1989/Anthropology/University of California, Los Angeles

Registrations:

2013 present	State Bar of California #289037
2000-present	Register of Professional Archaeologists

Professional Profile:

Ms. Andrews earned a Juris Doctorate from Concord Law School in 2012, and has been a member of the State Bar of California since March 2013. She earned her Master of Arts degree in Anthropology with a specialization in Public Archaeology from California State University, Northridge (CSUN) in 2000, where her Master's thesis research dealt with sampling methodology as applied to the analysis of fish bone remains from the extensive and highly stratified Eel Point site on San Clemente Island. She has been listed on the Register of Professional Archaeologists since 2000. Having served as Principal Investigator, Co-Principal Investigator, and Field Director, Ms. Andrews has experience in all aspects of project management, ranging from records searches and fieldwork to report writing and preparation. She also has experience in laboratory management, including artifact analysis, cataloging and curation, and has served as laboratory director for three university-run field schools, including the San Clemente Island Eel Point site field school run by CSUN, and the San Elijo Lagoon project run by ASM and University of California, San Diego. She currently also acts as ASM's technical report editor, providing in-house quality assurance and control. Her research interests include both desert and island adaptations, site formation processes, resource utilization, landscape patterning, and faunal analysis focused on aquatic resources.

Selected Project Experience:

Archaeological Survey Report, Historical Property Survey Report, and Historical Resources Evaluation Reports for the Academy Avenue Reconstruction Project, Fresno County, CA
Project Manager/Senior Archaeologist
CLIENT: Petra on behalf of Caltrans
Conducted records search, intensive pedestrian survey, an prepared final report. Included the evaluation of 13 architectural resources evaluated for their eligibility for listing in the NRHP and the CRHR. Report followed guidance in Caltrans SER. Of the 13 architectural resources, two commercial buildings recommended eligible for listing in the NRHP and CRHR at the local level of significance. The first, the Chuck Wagon, is eligible for its association with the theme of Recreation and Heine's Garage is eligible for its association with the themes of Transportation and Commerce and has a period of significance of 1930-1959.

Historic Property Survey Report, Historic Resource Evaluation Report, Finding of No Adverse Effect, and Archaeological Survey Report for the Verde School Bridge Replacement Project, Imperial County, CA
Project Manager/Senior Archaeologist
CLIENT: Panorama Environmental on behalf of Caltrans
Conducted archaeological survey; one historical resource, the East Highline Canal, relocated; identified canal features associated with the East Highline Canal and one possible historic resource, the Mesa Drain No. 7. Adjusted project so Mesa Drain was no longer in APE. No prehistoric resources identified.

HABS, HRCR, ASR, and FAE for the Sorrento Valley Industrial Park, San Diego County, CA
Project Manager/Senior Archaeologist
CLIENT: Caltrans
Conducted archaeological survey and prepared results in an ASR. No archaeological resources identified. Six historic built environment resources were identified and of those, five were determined eligible for the NRHP.

All-American Canal Lining Project Survey, Imperial County, CA
Field Director
CLIENT: USDI Bureau of Reclamation, Lower Colorado Region
Supervised two crew chiefs and six crew members, and co-authored report for this large-scale Class II and III inventory and random sample survey. Managed complete survey of the 4,200-acre right-of-way along approximately 23 mi. of the All-American Canal, and a 10-percent random sample survey that encompassed an additional 743 acres. This project was undertaken for use in planning the placement of quarrying and staging areas for the proposed canal lining project.

Class III Inventory of 1,339 Acres, and Condition Assessment and Re-Evaluation of NRHP Eligibility, Palo Verde Point, Imperial County, CA
Senior Archaeologist
CLIENT: Bureau of Reclamation, Lower Colorado Regional Office
Conducted a 1,339-acre Class III inventory and condition assessment and re-evaluation of NRHP eligibility of the Palo Verde Point, Lower Colorado Regional Reclamation Office. This inventory was conducted to provide Reclamation with cultural resource site information for compliance with Section 110 of the NHPA. The project identified over 40 previously undocumented ground stone material procurement sites.

Archaeological Re-survey and Site Testing for Naval Air Field (NAF) El Centro Target 101, Imperial County, CA
Senior Archaeologist
CLIENT: Naval Facilities Engineering Command, Southwest
Supervised and conducted survey of approximately 640 acres on NAF El Centro's Target 101, situated on Imperial County's West Mesa. Over 40 previously unrecorded archaeological sites were documented, many of which are associated with ancient Lake Cahuilla. The project also included testing of 60 fire-affected rock features for the purpose of determining the use, temporal range, and origin of these features that are ubiquitous in the area, but previously not systematically tested. Prepared site records and authored technical report.

Archaeological Survey for the Fort Yuma Healthcare Center, Imperial County, CA
Senior Archaeologist
CLIENT: DOWL HKM
Conducted a records search and pedestrian survey of the Quechan Tribe's Fort Yuma Healthcare Center, located on Indian Hill and adjacent the Tribal Headquarters. During this site visit, the ASM staff was led on a tour of the campus by a member of the maintenance staff at the hospital. A reconnaissance survey was also conducted for the other buildings within the NHL district on Indian Hill. Although these buildings are not part of the study, a general overview of the entire district was needed to evaluate impacts of the demolition of the buildings in the historic district as a whole, particularly Building 215. Conducted a meeting with the Quechan Tribe Cultural Committee to discuss and consult on the nine subject buildings and any other cultural concerns with regard to the hill in general.

BLM Roads Restoration Survey, Imperial County, CA
Senior Archaeologist
CLIENT: Bureau of Land Management, El Centro Field Office
Supervised and conducted records searches and surveys of approximately 400 acres of land impacted by off-highway vehicle activities on both East and West Mesas, including the DeAnza/Shellbed area of the Yuha Desert. Recorded one site and five isolates in the survey area, and seven sites, two isolates, and an update for the multicomponent Yuha Well site. Prepared site records and authored technical report.

Larry Tift
Associate Archaeologist

Total Years of Experience: 33

Education:

B.A. 1989/Anthropology/San Diego State University

Professional Profile:

Mr. Tift has 33 years of experience in southern California archaeology, spanning the region from the Mexican border to Kern County, and from the Channel Islands to Imperial and Riverside counties. His field experience includes survey, testing, data recovery, and monitoring projects of all types and sizes, and in accordance with the full range of local, regional, and federal regulatory requirements. As Field Director, Mr. Tift serves as the primary liaison between ASM's Principal Investigators and other personnel, including archaeological field crew, landowners and agents, outside contractors, and Native American monitors. He has a broad range of project management experience, having provided support for all cultural resource aspects of the environmental review and implementation of military construction (MILCON) projects, infrastructure improvement projects, and key military training events in accordance with federal protocol and guidelines while working at Marine Corps Base Camp Pendleton, and the design, implementation, and documentation of projects according to State of California guidelines as an Associate State Archaeologist within the Colorado Desert District. Mr. Tift has experience in all aspects of report preparation, including research, mapping and graphics, cataloguing and artifact analysis, and the regular contribution of technical portions of reports, including methods sections, environmental conditions, historic land use/impacts assessments, and management recommendations. As a member of ASM's Utilities division, Mr. Tift routinely participates in initial resource discovery and assessment activities, project impact determination, and the oversight and performance of mitigation and compliance tasks associated with project construction.

Select Project Experience:

Ocotillo Wells Control Pit Project, San Diego and Imperial counties, CA
Associate Archaeologist
CLIENT: California Department of Parks and Recreation
Established five permanent sampling site locations within Anza Borrego State Park for use with the Ocotillo Wells Habitat Monitoring System. Assisted in feasibility assessment of 22 potential sites, and performed field survey for the five locations that were ultimately selected. These locations spanned the entire Ocotillo Wells/Anza Borrego Desert State Park boundary from north to south, and were located in diverse terrain types representative of the region. All sites were accessed utilizing Ocotillo Wells OHV ark routes. Survey results were submitted for completion of State Parks Project Evaluation Form (PEF).

Machado Smith Excavation, CA-SDI-14295H, Old Town San Diego State of California Historic Park, San Diego County, CA
Associate Archaeologist and Field Director
CLIENT: Architect Milford Wayne Donaldson
Acted as Field Director during the Phase II excavation and evaluation of the remains of two 19th century structures within Old Town San Diego State of California Historic Park, in conjunction with a proposal to recreate the buildings within their original footprints. Acted as daily, onsite field director overseeing a crew of ASM and State Parks archaeologists and a Native American Monitor during extensive mechanical trenching and hand excavation, which succeeded in identifying the remains of the 19th century structures. Guided excavation in an attempt to identify the footprint of the structures and other 19th century features, documented the results, and collected artifacts for laboratory analysis. Contributed portions of the technical report, which evaluated the site as eligible to the CRHR and NRHP under 1/A, 2/B, and 4/D. California State Parks is the lead agency

Class III Archaeological Inventory for the SDG&E Sunrise Powerlink Project, San Diego and Imperial counties, CA
Crew Chief
CLIENT: San Diego Gas & Electric Company
Led a crew of field archaeologists in survey and site documentation along a 155-mile-long corridor, varying in width from 60 to 300 feet, for the proposed construction of a 500-kV transmission line. Coordinated fieldwork with agency personnel and Native American monitors, and assisted with preparation of the technical report.

Cleveland National Forest (CNF) Master Special Use Program and Powerline Replacement Project, San Diego County, CA
Associate Archaeologist and lead Monitor/Field Director
CLIENT: San Diego Gas & Electric Company
Conducted preconstruction surveys and assisted with impact avoidance plan for five transmission and seven distribution lines that occur on CNF and adjacent properties, including BIA, BLM and California State Parks. Coordinated with SDG&E project managers, engineers, subcontractors and contacted and met with landowners. Conducted and assisted with oversight of archaeological survey and monitoring, and assisted in preparation of technical reports to summarize results of the project and management plan for findings.

Tule Wind Energy, San Diego County, CA
Associate Archaeologist and Field Director/Lead Monitor
CLIENT: Avangrid Renewables
Coordinated with Avangrid project managers, engineers, subcontractors and Native American monitors, and co-directed an average of 17 crews (archaeologist and Native American monitors) per day for the initial ground disturbance phase of the Project. Participated in pedestrian survey, ESA installation, onsite coordination and performance of large scale construction monitoring, site testing and evaluation, and data recovery of archaeological resources within the turbine locations, associated roads, above-and-below-ground transmission lines and substation. Conducted oversight in accordance with County, Federal, and private land-owner protocols.

Revitalization of the Chancellor's House, San Diego County, CA
Associate Archaeologist and Field Director
CLIENT: University of California San Diego (UCSD)
Assisted with coordination with UCSD project managers, engineers, designers, subcontractors and Native American monitors. Conducted removal, water screening and repatriation of culturally significant materials within an identified burial ground. Uncovered and removed two intact/semi-intact inhumated burials. Contributed portions of technical report on findings.

East County (ECO) Substation Project, San Diego County, CA
Associate Archaeologist and Field Director
CLIENT: San Diego Gas & Electric Company
Participated in pedestrian survey, site testing and evaluation, and data recovery of archaeological resources within the ECO substation and the associated above-ground transmission lines. Conducted and supervised artifact catalog, curation, and collections management.

Cultural Resource Report for the Merriam Mountains Project, San Diego County, CA
Field Director
CLIENT: Dudek and Associates
Supervised field archaeologists in survey for an approximately 2,300-acre proposed development of master-planned community, including approximately 10 linear miles of off-site improvement areas, and 11 intersection off-site improvement areas, and subsequent site testing, indexing, and preservation program for identified sites, including two sites identified as significant under the California Environmental Quality Act and County of San Diego Resource Protection Ordnance criteria. Prepared sections of technical report and report graphics.

Laura Taylor Kung, M.A.
Architectural Historian

Total Years of Experience: 12

Education:

M.F.A.	2011/Fiction and Literature/Bennington College
M.A.	1998/Historic Preservation Planning/Cornell University
B.A.	1993/Art History/DePaul University

Professional Profile:

Ms. Kung has 12 years of experience in historic preservation and planning, and meets the Secretary of the Interior's *Professional Qualification Standards* for Architectural History. She has worked on historic and cultural resource assessments for projects throughout Los Angeles, San Diego, Riverside, and Ventura counties, and throughout California. Additionally, Ms. Kung has completed multiple projects in Hawaii and Washington. She has extensive experience in developing historical and cultural resources reports and in evaluating properties under federal, state, and local criteria, including National Register of Historic Places, Section 106 of the National Historic Preservation Act, California Register of Historical Resources, and California Environmental Quality Act compliance.

Ms. Kung's professional background includes management and contributions to projects concentrating on the evaluation of historic properties and districts. She has completed over 20 Historic Resource Reports for properties located in the City of West Hollywood. Ms. Kung currently serves as an Architectural Historian at ASM and her responsibilities include conducting background research, preparing historic contexts, evaluating and assessing historic properties, compiling significance statements for California Department of Parks and Recreation historic resources forms, and authoring sections of technical reports.

Selected Project Experience:

Cultural Resources Technical Study for Windsor Pointe Project, San Diego County, CA
Architectural Historian
CLIENT: Ascent Environmental Inc
Evaluated a four single-family residences on two parcels located in the City of Carlsbad for their potential historic significance in compliance with the California Environmental Quality Act. The report was prepared to assist the Project developers in determining whether the project had the potential to cause significant impacts.

Historic Resource Assessment for the Lockheed Marine Terminal, San Diego County, CA
Architectural Historian
CLIENT: Harris and Associates
Evaluated a building associated with the manned submersible vehicle Deep Quest for its eligibility for the California Register of Historic Places as an individual resource and as a contributor to a potential historic district. The report was prepared to assist the San Diego Unified Port District in future planning purposes in compliance with the California Environmental Quality Act.

Historic Resources Survey of the Works of Architect Loch Crane, San Diego County, CA
Architectural Historian
CLIENT: HELIX Environmental Planning
Researched and surveyed the work of San Diego architect Loch Crane. Developed a context based on survey findings, archival research of reviews of previous evaluations. The report included Department of Parks and Recreation primary forms for 30 identified properties.

Historic Resources Evaluation of Seven Buildings for the Clairemont High School Whole Site Modernization Cultural Resources Evaluation Report, San Diego County, CA
Architectural Historian
CLIENT: BRG Consulting
Prepared a historic evaluation report for eight buildings on the Clairemont High School campus in advance of modernization projects. Efforts included a site visit, photographic documentation of the buildings, and archival research. The evaluation included preparation of California DPR forms

City of Los Angeles On-Call Section 106 Historic Preservation Services Contract, Los Angeles County, CA
Architectural Historian
CLIENT: City of Los Angeles Housing + Community Investment Department
Provided on-call historic resources services for the City of Los Angeles, primarily related to historic properties affected by use of community development block grants, including programs to provide housing and shelter for homeless populations. Contributed to over 20 projects completed or currently underway including Section 106 reviews, identification of historic properties and determination of effects for properties including the Community Coalition building, the Pio Pico Pocket Park, the El Centro de Ayuda Building Improvement Fund building, Weingart Towers, and the Washington Arts Collective building.

City of Monrovia Historic Context Statement, Intensive Level Survey, and Identification of Potential Historic Districts, Los Angeles County, CA
Architectural Historian
CLIENT: City of Monrovia
Assisted in the development a citywide historic context statement for Monrovia, including recommendations for historic districts. Contexts and themes were identified and defined based on a windshield survey of the city, archival research using primary and secondary resources, and review of previous evaluations.

Cultural Resources Technical Report and Intensive-Level Historic Survey of Approximately 50 Buildings Across Five Campuses for the Muroc Joint Unified School District, Kern County, CA
Architectural Historian
CLIENT: Muroc Joint Unified School District
Prepared a technical report as part of a cultural resources study of five Muroc Joint Unified School District campuses located on Edwards Air Force Base, based on an intensive-level pedestrian survey of the five schools and archival research. Included in the work effect was preparation of Department of Parks and Recreation district and primary forms. The report was prepared in compliance with Section 106 of the National Historic Preservation Act, the National Environmental Policy Act, and the California Environmental Quality Act.

Los Angeles County Historic Preservation and Mills Act On-Call, Los Angeles County, CA
Architectural Historian
CLIENT: County of Los Angeles
Currently working with the County under its new Preservation Ordinance to review of proposed projects at specific residential sites. Work is performed to ensure compliance with the Secretary of the Interior's Standards for property owners to determine eligibility for Mills Act tax credits. Several of the properties reviewed are in the County's first designated historic district, the View Park Historic District.

Historic Resource Evaluation for 1312 North Harper Avenue, Los Angeles County, CA
Architectural Historian
CLIENT: Vanown Holdings
Prepared an evaluation for an apartment building located in a historic district in the City of West Hollywood. Reviewed previous surveys, assessor's building records, and chain of ownership for the property. Conducted an intensive pedestrian survey and a reconnaissance survey of the neighborhood to consider a potential historic district. The evaluation was conducted to consider the eligibility of the property under the National Register of Historic Places, the California Register of Historic Resources, and City of West Hollywood eligibility criteria and in compliance with the California Environmental Quality Act.

APPENDIX B

SCIC Records Search Confirmation

South Coastal Information Center
San Diego State University
5500 Campanile Drive
San Diego, CA 92182-5320
Office: (619) 594-5682
www.scic.org
scic@mail.sdsu.edu

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM
CLIENT IN-HOUSE RECORDS SEARCH

Company: ASM Affiliates

Company Representative: Nick Doose

Date: 1/21/2022

Project Identification: Forrester Bridge #38600

Search Radius: 1/2 mile

Historical Resources: SELF

Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Survey Report Boundaries: SELF

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Addresses: SELF

A map and database of historic properties (formerly Geofinder) has been included.

Historic Maps: SELF

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Copies: 0

Hours: 1

This is not an invoice. Please pay from the monthly billing statement

EEC ORIGINAL PKG

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334
HRI #
Trinomial IMP-7834

Page 1 of 1
Recorded by: Joel Lennen

*Resource Name or # Westside Main Canal / IMP-7834
Date: April 25, 2017

☐ Continuation ■ Update

P1. Other Identifier: Westside Main Canal
*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County: Imperial County
*b.USGS 7.5' Mount Signal Quad Date 1979 T 16S; R 12E; ¼ of ¼ of Sec 35; B.M.
c. Address City Zip
d. UTM: Zone 11 S, west side 620436.83 mE/ 3622228.39 mN; east side 620882.48 mE/ 3622133.77 mN
e. Other Locational Data: south of Mandrapa Road, from Liebert Road east for approximately 1,400 feet.

*P3a. Description: P-13-008334/IMP-7834, the Westside Main Canal, is located immediately adjacent to the southern boundary of the Project area. Segments of this irrigation canal, which runs for approximately 40 miles through agricultural land in the Imperial Valley section of Imperial County, have been recommended eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. Although varying segments of the canal have been recommended as not eligible for the NRHP due to lack of integrity.

During the current survey, a small segment of the canal was identified, outside but adjacent to the Project area, beginning at the intersection of Mandrapa and Vogel Roads, heading west, ending at the intersection of Mandrapa and Liebert Roads. The canal is approximately 75 feet wide and is banked by earthen levees of vegetation. Dirt roads run along the levees on both sides of the canal for maintenance and dredging access. The canal was in the same condition as described by the previous recordations.

*P8. Recorded by: (Name, affiliation, and address)
Joel Lennen
ASM Affiliates, Inc.
2034 Corte del Nogal
Carlsbad, CA 92011

*P10. Survey Type: (Describe):
Intensive Pedestrian

*P11. Report Citation:
Castells, Shelby and Joel Lennen
2017 *Cultural Resource Inventory for the Vega SES LLC Solar Project, Imperial County, California.* Submitted to Vega SES LLC.

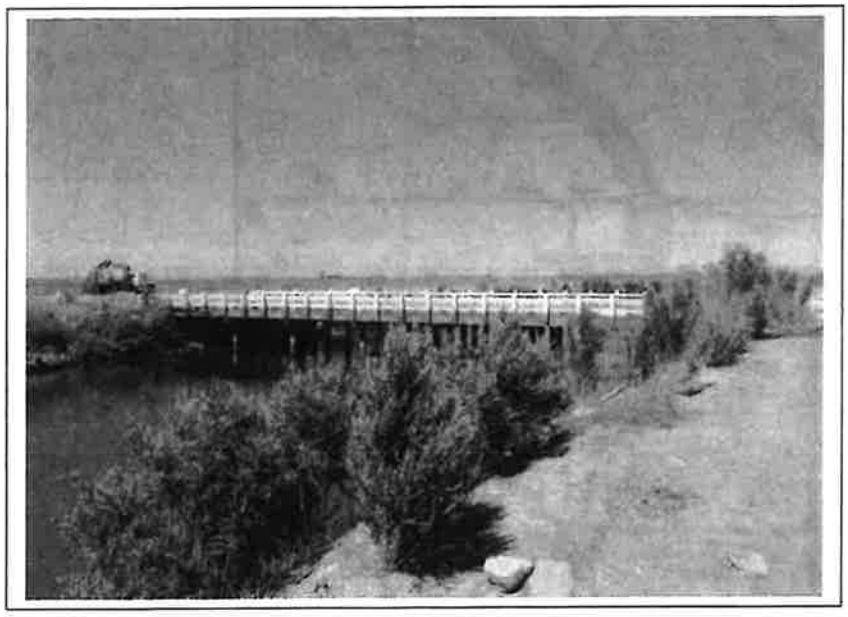
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7835 UPDATE
NRHP Status Code: 3D

Page 1 of 2 ***Resource Name or # (Assigned by recorder)** East Highline Canal at Bridge No. 58C-0115
Recorded by: Marilyn Novell, Architectural Historian **Date:** October 31, 2016
☐ Continuation ☒ Update

P1. Other Identifier: East Highline Canal at Bridge No. 58C-0115 and the adjacent delivery system associated with the East Highline Canal (segments of East Highline No. 1 Side Main and East Highline Lateral No. 1)
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Bonds Corner **Date:** 2015; **T** 16S; **R** 16E; **of Sec.** 26 and 35; S.B. **B.M**
c. Address: N/A **City:** Holtville **Zip:** N/A
d. UTM: Zone 11S 660290.84 **mE** / 362204.40 **mE** N
***P3a. Description:**
The East Highline Canal is a linear feature that runs from the Alamo River to just north of Niland. A small portion of the Canal measuring approximately 200 feet is within the project area, where it is crossed by Verde School Road at Kumberg Road. In and near the project area, the Canal varies between 95 and 105 feet in width and is contained within earthen banks capped by dirt access roads. Fairly dense, low vegetation lines the areas of the banks nearest the water. At the middle of the site, a bridge with wood railings spans the Canal. North of the bridge on the western bank of the Canal is a three-sided structure composed of fragments of bricks and mortar sitting on a base of stone and lined with concrete. Large pieces of broken concrete are leaning against the structure and scattered nearby. The East Highline No 1 Side Main parallels the East Highline Canal approximately 130 feet to the west of the western bank of the Canal. The sloping sides of the drain are lined with concrete. At the time of survey, it contained water from approximately 4 feet below ground level to an unknown depth, and the bottom of the waterway thus was not visible. Several feet from the point at which Verde School Road crosses the drain, check dams constructed of metal and concrete are incorporated into the crossing. At an irregularly shaped holding bay to the north of the road are three additional check dams on the east and west sides. To the south of the road three concrete walls channelize the water. At the time of survey, the canal was carrying water and appeared to be in operation. The Canal and associated features retain integrity.

(Continued on page 2)



***P3b. Resource Attributes:** HP20. Canal/Aqueduct
P5a. Photograph or Drawing:
P5b. Description of Photo: View northwest from the east bank of Canal south of bridge. September 22, 2016.

***P6. Date Constructed/Age and Sources:**
☒ Historic; constructed circa 1914
☐ Prehistoric ☐ Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E Barioni Blvd, Imperial, CA 92251

***P8. Recorded By:**
Marilyn Novell, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** October 31, 2016

***P10. Survey Type:** Reconnaissance

P11. Report Citation: ASM Affiliates. 2017. *Historical Resources Evaluation Report for the Verde School Road Bridge Project, Imperial County, California.* Prepared for Caltrans District 11a. September 2017.

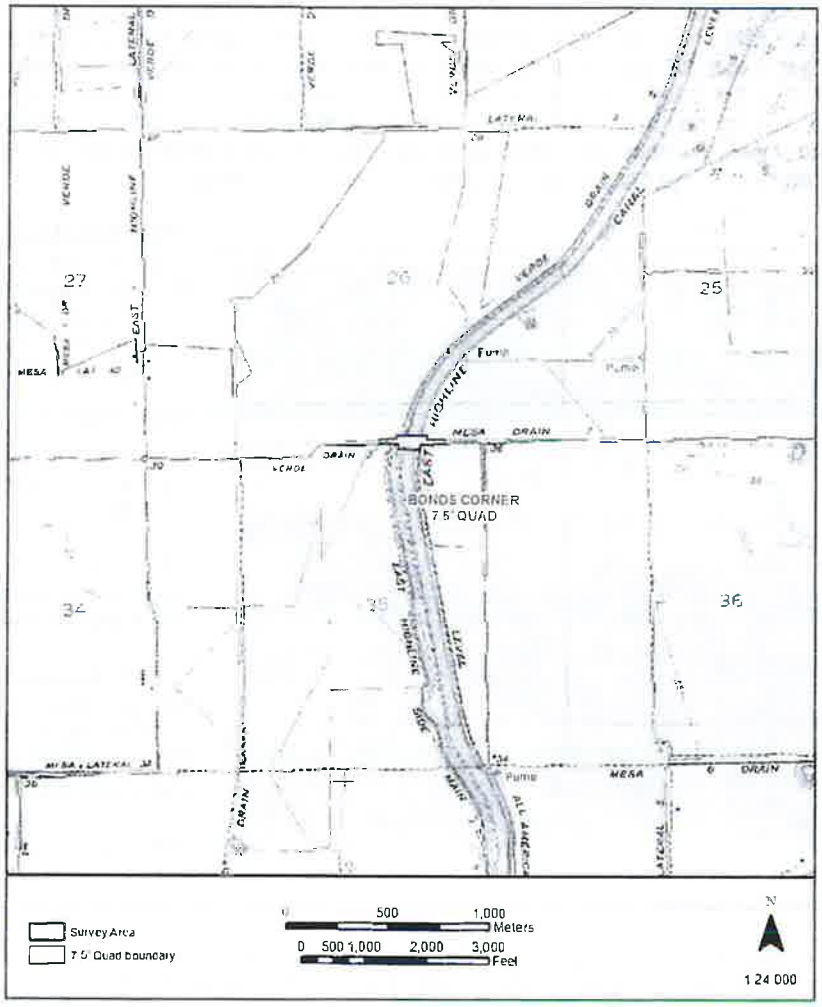
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008333 UPDATE
HRI #
Trinomial CA-IMP-7835 UPDATE
NRHP Status Code:

 ***Resource Name or # (Assigned by recorder)** East Highline Canal at Bridge No. 58C-0115
Recorded by: Marilyn Novell, Architectural Historian **Date:** October 31, 2016
☐ Continuation ☒ Update

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: 1914-1942 **Property Type:** Waterway **Applicable Criteria:** A/1, C/3
As a segment of the previous evaluated East Highline Canal, the East Highline Canal at Bridge No. 58C-0115 and the adjacent delivery system associated with the East Highline Canal (segments of East Highline No. 1 Side Main and East Highline Lateral No. 1) are recommended eligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) under Criterion A/1 for association with the theme of *Development of Irrigated Agriculture in the Imperial Valley, 1900-1942* and under NRHP and CRHR Criterion C/3 as an example of early engineering design of canal systems in Imperial County, at the local level with a period of significance of 1914 (when this canal was constructed) and ending in 1942. The fragment of a former gate structure is a non-contributing element of the canal as it lacks integrity as a built-environment resource, does not contribute to the function of the canal (does not deliver water/irrigate), and does not possess any data potential.

Location Map



*Required Information

EEC ORIGINAL PKG

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-008334 Update
HRI # _____
Trinomial _____
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or # Westside Main Canal

P1. Other Identifier: Westside Main Canal
*P2. Location: ☐ Not for Publication ☒ Unrestricted *a. County Imperial County
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Plaster City Quad Date 1979 T R; ¼ of Sec 7; SB B.M.
c. Address City Zip
d. UTM: Zone 11S; 613474.85 mE/ 3628580.65 mN (Northern terminus within the APE)
Zone 11S; 615427.74 mE/ 3628580.65 mN (Southern terminus within the APE)
e. Other Locational Data:

*P3a. Description:
This site form updates a 7 mile segment of the forty mile Westside Main Canal alignment. The Westside Main Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment is located .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85_mE/ 3628580.65_mN). After the canal passes under Interstate 8 the route orients to the southeast. The remainder of the route curves and the southern terminus of the recorded segment ends .25 miles east of the intersection at Mandrapa and Liebert in Imperial, CA (UTMs Zone 11S; 615427.74_mE/ 3628580.65 mN). The canal is approximately 75 feet wide. It is banked by earthen levees of vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal for maintenance and dredging access.

*P3b. Resource Attributes: HP. 20 Canal/Aqueduct
*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo:
Camera facing south; 07/20/2011; DSCN 9772

*P6. Date Constructed/Age and Sources:
☒ Historic ☐ Prehistoric ☐ Both
c. 1906/*IMP-98 HASR*, 1999.

*P7. Owner and Address:
Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251

*P8. Recorded by:
AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

*P9. Date Recorded: 07/20/2011

*P10. Survey Type: (Describe) Intensive

*P11. Report Citation: *BUILT ENVIRONMENT SURVEY REPORT ADDENDUM TO THE CULTURAL RESOURCES INVESITGATIONS CLASS III REPORT FOR THE IID DIXIELAND 230 kV TRANSMISSION LINE AND SUBSTATION EXPANSION PROJECT, IMPERIAL COUNTIES, CALIFORNIA*, AECOM 2012

*Attachments: NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☒ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

*Required Information

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-13-008334 Update
HRI #
Trinomial

Resource Name or #: Westside Main Canal

L1. Historic and/or Common Name: Westside Main Canal

L2a. Portion Described: ☐ Entire Resource ☒ Segment ☐ Point Observation **Designation:**

b. Location of point or segment:

The northern terminus of the recorded segment can be reached from El Centro by taking Interstate 8 west for 7 miles and exit towards Seeley traveling on Drew Road for one mile. Turn left on Drew Road and go west for 4 miles. The northern terminus of the recorded segment begins .25 miles east of Centila State Prison at UTMs Zone 11S; 613474.85_mE/ 3628580.65_mN.

L3. Description:

This site form updates a 7 mile segment of the forty mile Westside Main Canal alignment. The Westside Main Canal is an irrigation canal that runs though agricultural land in the Imperial Valley section of Imperial County. The northern terminus of the recorded segment enters the Area of Potential Effects (APE) .25 miles east of Centinela State Prison in Imperial, CA (UTMs Zone 11S; 613474.85_mE/ 3628580.65 mN). After the canal passes under Interstate 8 the route orients to southeast. The remainder of the route curves and the southern terminus of the recorded segment ends .25 miles east of the intersection at Mandrapa and Liebert in Imperial, CA (UTMs Zone 11S; 615427.74_mE/ 3628580.65_mN). The canal is approximately 75 feet wide running perpendicular to Hwy 80. It is banked by earthen levees of vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal for maintenance and dredging access.

L4e. Sketch of Cross-Section (include scale) Facing:

L4. Dimensions:

a. Top Width 75 feet
b. Bottom Width unknown
c. Height or Depth 10 feet
d. Length of Segment 7 miles

L5. Associated Resources:

The Fox Glove Canal runs parallel to the Westside Main Canal.

L6. Setting:

Located in between Plaster City and Seeley, the canal is surrounded by primarily irrigated agricultural land. A variety of crops grow along this segment, as well as rural vegetation along its banks. Dirt access roads run parallel to the canal along its berms.

L7. Integrity Considerations:

The canal is currently in use and is regularly maintained to keep the banks properly groomed and the quantity of silt minimal.

L8b. Description of Photo, Map, or Drawing: Camera facing south; 07/20/2011; DSCN_8771

L9. Remarks:

L10. Form Prepared by:

AECOM
1420 Kettner Blvd., Suite 500
San Diego, CA 92101

L11. Date:

07/20/2011

EEC ORIGINAL PKG

This site form updates the 7-mile recorded segment of the larger 40 mile Westside Main Canal. P-13-008334 was recorded by Jill Hupp in 1999. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that. under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl

2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California*. Prepared by AECOM

Hupp, Jill

1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

UPDATE

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #: P-13-008334
HRI#
Trinomial CA-IMP-7834

Page 1 **of** 1 ***Resource Name or #:** (Assigned by recorder)

***Recorded by:** C. Bowden-Renna ***Date:** 1/2010 ☐ Continuation ■ Update

Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl
2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California*. Prepared by AECOM.

Hupp, Jill
1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-008334 Update
HRI #
Trinomial CA-IMP-7834 Update
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

*Resource Name or #: Westside Main Canal

P1. Other Identifier: Westside Main Canal

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County:** Imperial

***b. USGS 7.5' Quad:** Mount Signal **Date:** 2010 **T** 17S;**R** 12E/13E; of **Sec** 3, 2, 11, 12, 13, 24, 19, 20, 17, 21, ;**S.B.B.M.**

c. Address: N/A City: N/A Zip: N/A

d. UTM: Zone: 11N; North end:620445mE/ 625496mN; South end: 625496mE/3613610mN (G.P.S.) NAD 83

e. Other Locational Data: Elevation: -7 m below sea level

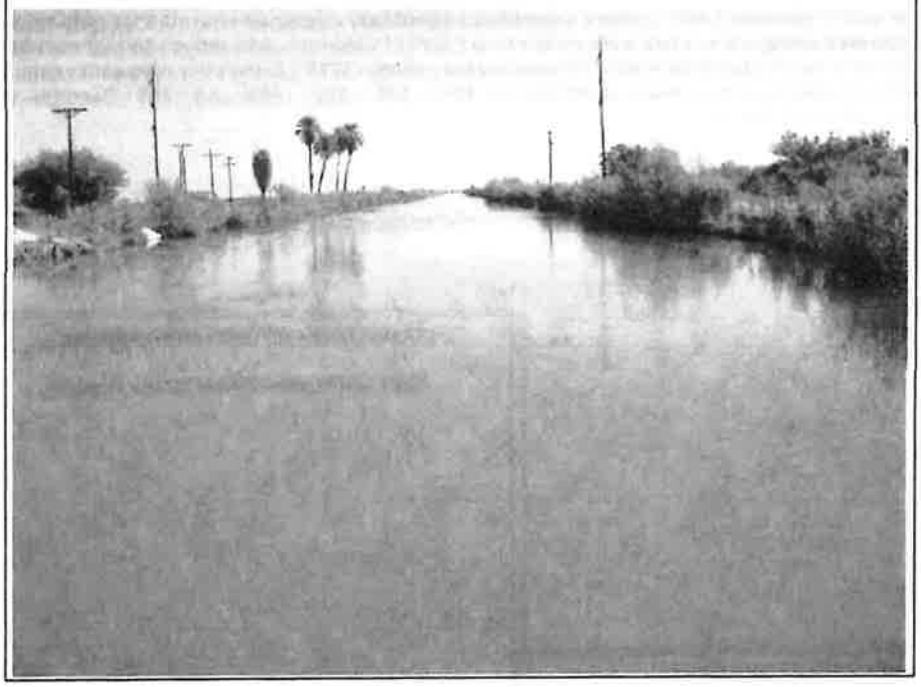
Approximately seven miles west of El Centro along Hwy 8 is the intersection of Drew Road. When traveling west on Hwy 8 towards this intersection, take exit 107 for Drew Road toward Seeley. Merge onto Drew Road heading south bound. Continue along Drew Road for 2.3 miles to reach W Wixom Road. Turn west onto W Wixom Road and continue on this road for 1.4 miles to reach Liebert Road. Turn south onto Liebert Road and continue for 0.6 miles to reach Mandrapa Road. Turn west on Mandrapa Road; the Westside Main Canal flows adjacent to Mandrapa Road.

***P3a. Description:** Constructed in 1907, Site 13-8334 the Westside Main Canal, is part of the earliest irrigation system in the Imperial Valley, and was later integrated into the All-American Canal during the late 1930s. The All-American canal runs in an east-west direction just north of the international border with the U.S. and Mexico. The portion of the Westside Main canal as it passes through the APE is approximately 8 feet deep and 40 feet wide and is earthen lined. The portion of the Westside Main Canal that was surveyed includes a segment along the south side of Mandrapa Rd., between North Hyde Rd. to the west and Drew Rd. to the east. The Westside Main Canal was updated by Jennifer Krintz of ASM Affiliates in April 2011. The condition of the canal has not changed since its update by ASm Affiliates in April 2011.

***P3b. Resource Attributes:** HP20 Canal/Aqueduct

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☒Other (Isolates, etc.)

P5a. Photo



P5b. Description of Photo: Westside Main Canal Facing east

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Boulevard
Imperial, CA 92251

***P8. Recorded by:**
C.Bodmer, B. Bartram, B. Johnson
T. Murphy, S. Wintergerst
Chambers Group Inc.,
5 Hutton Centre Drive, Ste. 750,
Santa Ana, CA 92707

***P9. Date Recorded:** 11/19/2011

***P10. Survey Type:** Pedestrian survey(15 meter transect intervals)

***P11. Report Citation:** A Class III Cultural Resources Inventory For The Agile Energy, Inc. Silverleaf Photovoltaic Solar Project Near The City Of El Centro, Imperial County, California

***Attachments:** ☐NONE ☒Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code

*Resource Name or # (Assigned by recorder) Westside Main Canal

B1. Historic Name: Westside Main Canal
B2. Common Name: Westside Main Canal
B3. Original Use: Irrigation Ditch
B4. Present Use: Irrigation Ditch

***B5. Architectural Style:** N/A

***B6. Construction History:** The Westside Main Canal was constructed in 1908 as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of this portion of the Westside Main Canal was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** N/A **Original Location:** N/A

***B8. Related Features:** None

B9a. Architect: N/A
b. Builder: Imperial Irrigation District

***B10. Significance: Theme:** N/A
Area: West El Centro, Imperial County
Period of Significance: N/A **Property Type:** Irrigation Ditch **Applicable Criteria:** N/A

In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**
See Continuation Sheet 523L (Page 6)

B13. Remarks:

(Sketch Map with north arrow required.)

See Continuation Sheet 523L (Page 5)

***B14. Evaluator:** Jeremy Hollins

***Date of Evaluation:** 04/2011

(This space reserved for official comments.)

*Required information

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States in approximately 1906 was intended to alleviate irrigation problems and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the Dixieland area of Imperial County. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the Dixieland area of Imperial County was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

By 1907, the Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigacion y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley. The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

*Recorded by: URS Corporation *Date: 03/2010 ☒ Continuation ☐ Update

The Westside Main Canal system distributes irrigation water throughout Imperial County using a large network of smaller canals and drains. By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging, grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal.

The addition of a non-historic period pipeline, and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal.

In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed Solar Farm adjacent or perpendicular to the existing structure would not create a new adverse effect or significant impact.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 13-8334
HRI#
Trinomial CA-IMP-7834

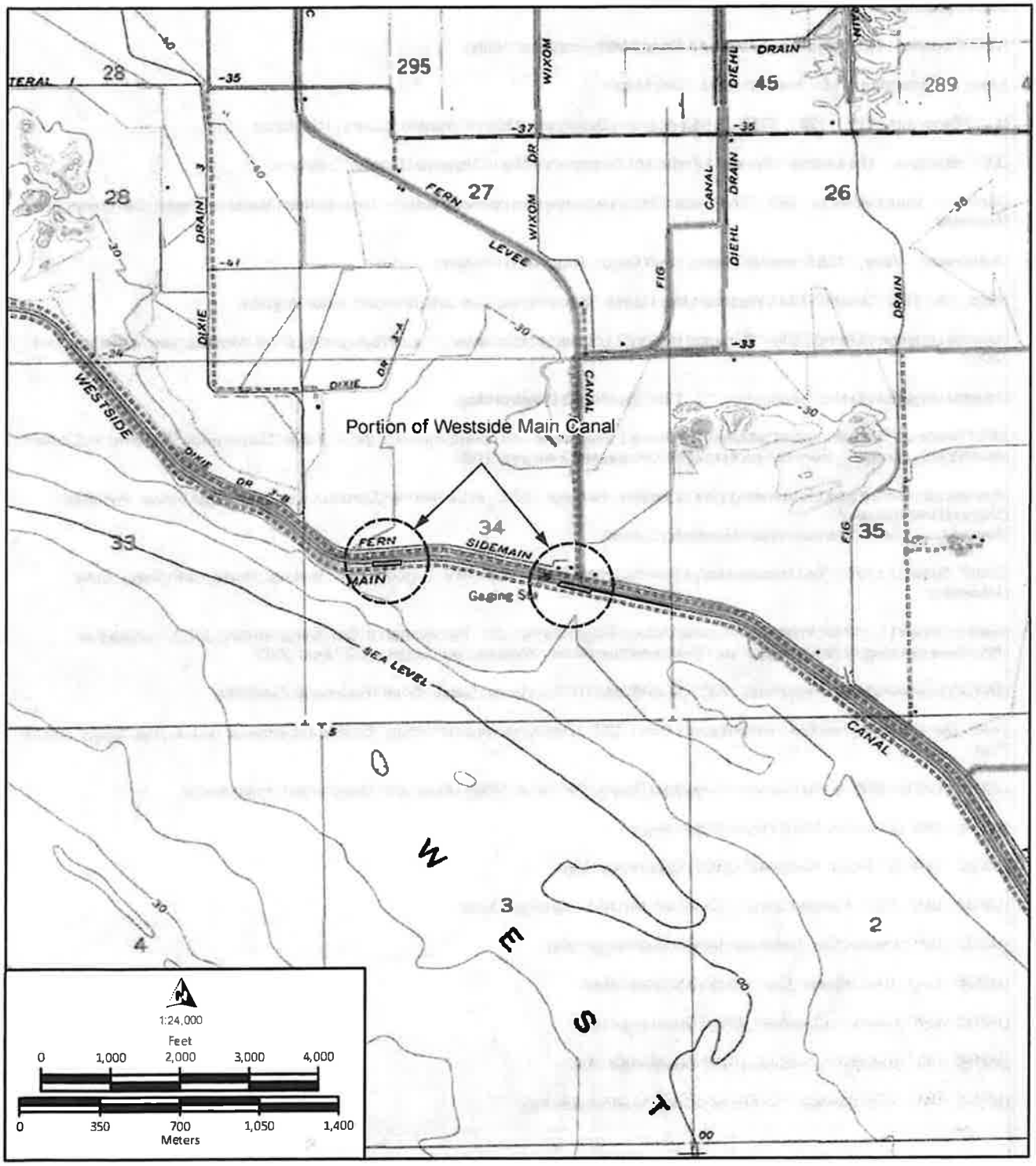
Page 5 of 6

*Resource Name or #: Westside Main Canal

*Map Name: Mount Signal

*Scale: 1:24,000

*Date of Map: 2010



EEC ORIGINAL PKG

*Recorded by: URS Corporation *Date: 05/2009 ☒ Continuation ☐ Update

B12. References

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Albert G. Thurston. 1914. Imperial Valley Tract Map.

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Henderson, Tracey, 1968. Imperial Valley. San Diego: Neyensech Printers.

Hupp, Jill, 1999. CA-IMP-7834 Westside Main Canal. Sacramento: Caltrans Environmental Program.

Imperial Irrigation District, 2006. "General History." Located at http://www.iid.com/Sub.php?pid=14. Website last visited on April 2009.

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Smith, Karen J., 1979. The Reclamation of the Imperial Valley, 1849-1916. Unpublished Masters Thesis, San Diego State University.

Sperry, Robert L., 1975. When the Imperial Valley Fought for its Life. The Journal of San Diego History, 21(1). Located at: http://www.sandiegohistory.org/journal/75winter/imperial.htm. Website last visited on 27 April 2007.

SWCA Environmental Consultants. 2007. CA-IMP-8821H Fox Glove Canal. South Pasadena, California.

Tout, Otis B., 1932. The First Thirty Years—1901-1931: History of Imperial Valley, Southern California, U.S.A. San Diego: Otis B. Tout.

USDA. 1949 & 1976. Aerial Survey of Imperial County. On file at UCSD Maps and Government Publications.

USGS. 1908. El Centro USGS Quadrangle Map.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge 7.5-minute USGS Quadrangle Maps.

USGS. 1940. Plaster City 15-Minute USGS Quadrangle Map.

USGS. 1943, 1944. Plaster City 1 to 62,500 Scale Map.

USGS. 1940. Brawley 15-minute USGS Quadrangle Map.

USGS. 1957. Brawley 7.5-minute USGS Quadrangle Map.

USGS. 1957, 1979. Seeley 7.5- minute USGS Quadrangle Map.

*Recorded by: Trish Mitchell, Erica Maier, and Heather Thomson: kp environmental, LLC and Alan Hatcher: Native American Monitor, Cocopah *Date: 01/24/2012 ☒ Continuation ☒ Update

CA-IMP-7834 was first recorded in 1999 by Jill Hupp who conducted extensive background research documenting the history of the Westside Main Canal. This resource has been recorded, evaluated, re-recorded, updated and re-evaluated nine times since it was first recorded in 1999. Each time only the portion of the canal within the project right-of-way was documented and ultimately evaluated for significance. As of 2011 (Davis et al. 2011; Mitchell 2011) the segments of the Westside Main Canal within the Campo Verde Solar Facility APE is determined eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. In 2001 the Bureau of Reclamation and the California SHPO concurred that the All-American canal is eligible for the NRHP under Criterion A and by extension the Westside Main Canal is as well (Hunt 2008). Davis concurred with this determination for the Campo Verde Solar Facility APE (Davis et al. 2011; Mitchell 2011). The Pump 6 segment of the Westside Main Canal that is recorded in the current survey area was not a part of Davis' 2011 evaluation. Chambers Group (2011) relocated the Pump 6 portion of the site during their November 2011 survey as previously recorded. KPE updated the Pump 6 site location to include a segment on the western end of the canal where the canal turns northwest and extends for another 900 feet.

Mitchell, Patricia T. 2012. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project BLM Gen-Tie Option Alternatives, Imperial County, California.

Chambers Group, Inc. 2011. Draft - A Class III Cultural Resources Inventory for the Silverleaf Photovoltaic Solar Project Imperial County, California.

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Hunt, Kevin. 2008. Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project in Imperial, Orange, Riverside, and San Diego Counties, California. SWCA Environmental Consultants. Report submitted to Bureau of Land Management, California Desert District, Moreno Valley, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

IMG 3385: Canal corner where it turns NW for 900 feet, View to E.

IMG 3387: Westside Main Canal Pump 6, View down.

State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PHOTOGRAPH RECORD

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

Resource Name or #: Westside Main Canal – Pump 6
Year 2011

Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View
1	23	3385	Canal corner where it turns NW for 900 feet.	E
1	23	3387	Westside Main Pump 6	D
1	23	3388	Westside Main Pump 6	S
1	23	3392	Siphon	E
1	23	3393	Siphon	W

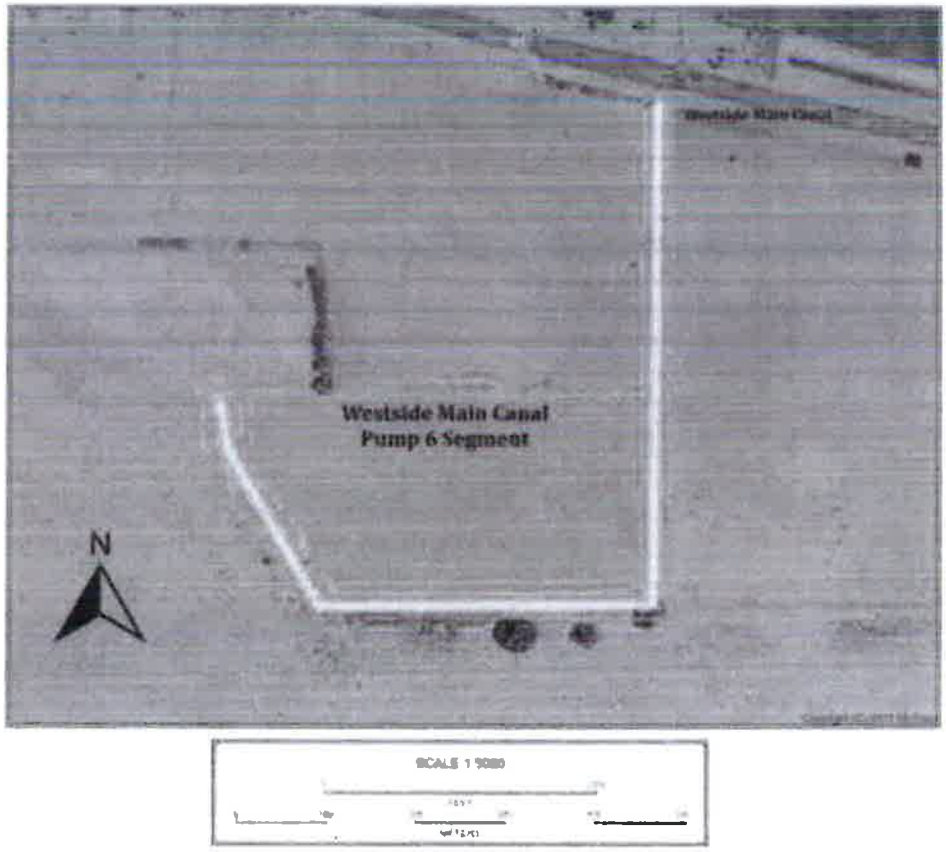
State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

Page 4 of 5 *Resource Name or # (Assigned by recorder) Westside Main Canal - Pump 6

*Drawn By: Trish Mitchell *Date: 1/24/2012

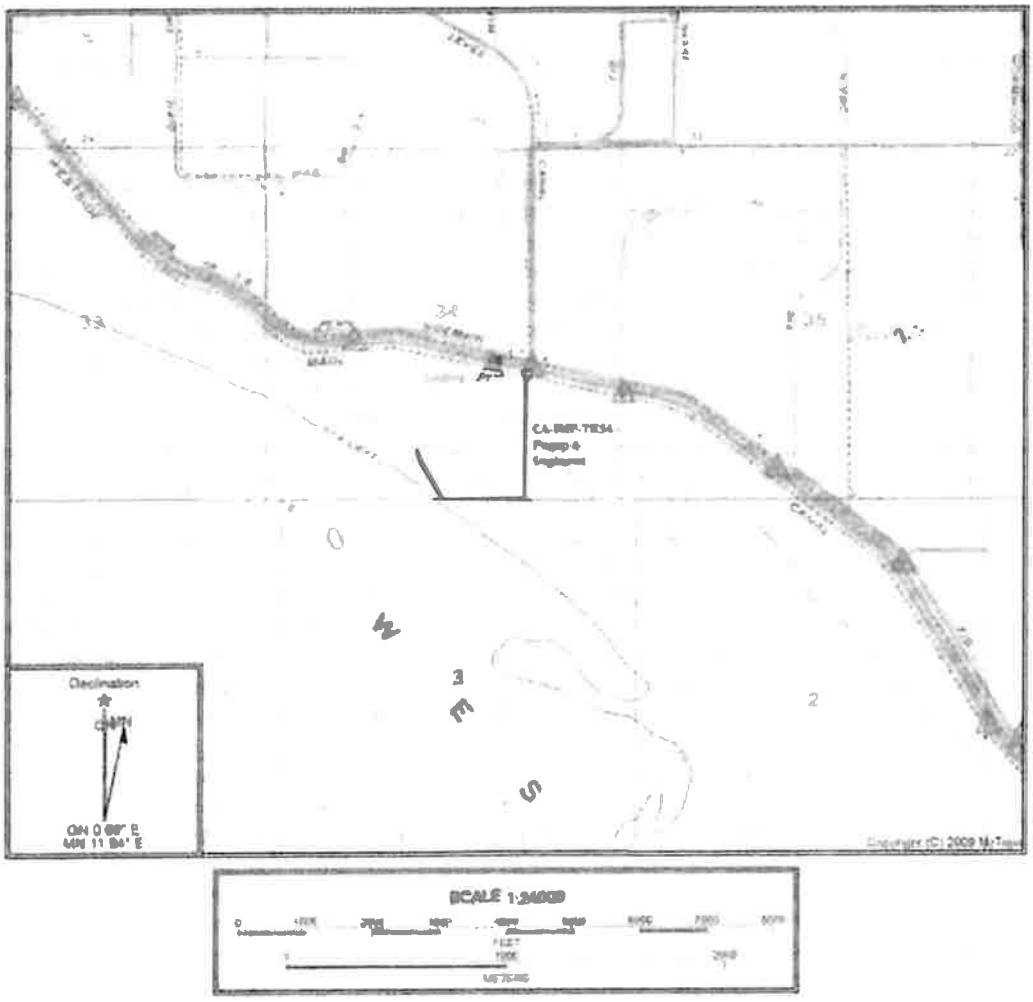


State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

*Map Name: Mount Signal, Calif. *Scale: 1: 24,000 *Date of Map: 1957 (1976)



EEC ORIGINAL PKG

State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13- 008334 UPDATE
HRI#
Trinomial CA-IMP-7834

Page 1 of 9 *Resource Name or # (Assigned by recorder) Westside Main Canal
*Recorded by: H. Thomson *Date: 11/03/2011 ☐ Continuation ☒ Update

P-13-08334 (CA-IMP-7834) is the West Side Main Canal, an irrigation feature. The canal was first recorded in 1999 by Jill Hupp who conducted extensive background research documenting the history of the Westside Main Canal. Later site updates have basically regurgitated this information, tailoring it to fit the project. As part of a historical context study focusing on Water Conveyance Systems in California, JRP and Caltrans nicely sums up the Imperial Valley canal history as follows:

> *"…..The newly named Imperial Valley begins to develop widespread irrigated agriculture after 1898-1899, when C. R. Rockwood and George Chaffey took an interest in the area.Even Chaffey's efforts in the Imperial Valley did not succeed totally until the federal Reclamation Service became involved. Chaffey and Rockwood's California Development Company built a canal to serve the Imperial Valley in 1900-1902. Because of unstable sandy soil west of the Colorado River, part of the canal alignment had to be constructed south of the border, and it ran through Mexican land before turning north into the Imperial Valley. Farmers irrigated 25,000 acres the first season, and 100,000 acres by the next.*
> *In an effort to avoid water rights issues raised by a hostile federal Reclamation Service, and to get around large accumulations of silt at the out-take on the Colorado River, on the American side of the border, the California Development Company cut a wide outlet with no head gate in the riverbank inside Mexico. Unusually high flood waters tore open this outlet in the winter of 1905, overwhelming the main canal.*
> *On and off for the next two years, the Colorado River flowed through the main canal, flooding large areas of the Imperial Valley, destroying many farms and parts of some communities, and ultimately filling the Salton Sink, creating the Salton Sea.*
> *As work developing the valley went ahead, the company organized smaller mutual water companies to build ditch systems drawing off the main canals. By 1906, over 130,000 acres were under irrigation, growing to 180,000 acres in 1910, but Chaffey and Rockwood's company had gone into receivership in 1909. As demand for an irrigation district grew among remaining settlers, the Imperial Irrigation District was created in 1911. It encompassed more than 600,000 acres, by far the largest in the state. The Southern Pacific railroad purchased the California Development Company's works in February 1916, and then sold them in turn to the Imperial Irrigation District in June. By 1919, total irrigated acreage in the valley reached 400,000 acres, dropping to 300,000 at the beginning of the Great Depression, and in 1960 climbed to 565,000 acres.*
> *The massive works of the Imperial Irrigation District encompass an elaborate 75-gate heading on the Colorado River, a main canal running through to Calexico, and a web of over 2,400 miles of canals and laterals, with attendant gates, checks, drops, and miscellaneous structures. In the 1920s, the canals were unlined. Until most of the district's canals and laterals were straightened and lined with concrete beginning in the 1950s, they were plagued by silting problems. For example, in 1927, the district cleaned sand and silt from 3,274 miles of canals and surface drains.*
> *Among the reasons for the USBR's involvement in irrigation development in the Imperial Valley was the constant danger of the canal system's being washed out during high water stages in the Colorado River. In addition, the canal alignment located partly in Mexico left the system vulnerable to international disputes. During the late 1930s the USBR headed the All-American Canal project to construct a new canal north of the border. When completed, the All-American Canal brought water to the Imperial Valley south of the Salton Sea, and a branch called the Coachella Canal irrigated the Coachella Valley north of the Salton Sea…."*

Previous Site Records

This resource has been recorded, evaluated, re-recorded, updated and re-evaluated seven times since it was first recorded in 1999. Each time only the portion of the canal within the project right-of-way was documented and ultimately evaluated for significance. A summary of past recordation's follows.

May 24, 1999
Jill Hupp, Caltrans Environmental Program
The project APE was the area where State Route 98 crosses the Westside Canal. The site record shows a NRHP status code of 6. The significance statement is as follows:

> *...West side Main canal today, like the IID irrigation system overall, reflects the development that occurred as a result of the construction of the All American Canal in 1941, after which the system was considerably expanded and modernized. The Westside Main Canal appears to possess significance under criteria A and C for its association with the development of irrigated commercial agriculture in the Imperial Valley west of New River in the early 1900's and as a good example of an early large scale irrigation canal system. However, research to date appears to indicate that the canal as a whole, while significant, would not possess the requisite degree of integrity due to reconstruction and dredging activities since the 1950's, but no survey of the canal in its entirety has yet been undertaken. Caltrans architectural historian Frank Lortie, after an extensive study of the IID system in 1997, concluded that the elements in the IID that retain integrity for the period 1941-1950 could be contributors to a potentially eligible National Register historic district. The segment within the project vicinity does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association to represent the canals significance in itself or as a contributor to a larger property. While sill earthen, extensive dredging since the 1960's has changed the basic configuration of the canal, because modern dredging equipment created a different ditch profile, more U-shaped and with steeper sides. The canal was extended and widened over time as the IID attempted to keep up with its ever-expanding service area. Because of these alterations it reflects neither the period of significance outlined by Lortie (1941-1950) nor the earlier period of the canal systems history (1901-1907)...."*

June 2000
N. Harris and Michael Oberndorgf; HDR Engineering
The project APE was located approximately 1300' south of Dixieland at the ROW of the San Diego and Eastern Railroad. The site form states as follows:

> *"...As part of the All American Canal System, this canal is eligible for NRHP inclusion....The canal is part of the historic system of canals that make up the extensive hydraulic irrigation system in the Imperial Valley. These canals profoundly influenced the Euro-American land use, settlement patterns, economy, and the cultural landscape of southern California and continues to do so today."*

February 28, 2007
Jeanette A. McKenna
McKenna updated the site record at this time stating that the canal was considered a significant resource and as part of the All American Canal System, was recommended eligible for inclusion on the National Register of Historic Places. She recommended that monitoring be required during construction of the proposed pipeline and that the project be designed to avoid impacts to the resource during construction as well as maintenance activities.

April 19, 2007
SWCA Environmental Consultants
SWCA examined a 300-foot long segment of the canal during survey activities conducted for alternatives related to the Sunrise Powerlink Project. The SWCA update for this resource states as follows:

> *"The Westside Main Canal has not been altered or modified since its last update 1999 (Jill Hupp), when it was found not eligible for listing in the National Register (NHRP) as a separate property or as a contributor to a district. However in 2001 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All American Canal is ELIGIBLE for the NRHP; by extension the Westside Main Canal is now recommended ELIGIBLE for NRHP and California Register of Historic Resources (CRHR) under Criterion A/1 for its significance in association of the Imperial Valley".*

In addition, resources associated with the Westmain Canal, the Fox Glove Canal and Dixie Drain were recommended eligible for inclusion as part of the NRHP-eligible All-American Canal System.

December 12, 2007
EPG
Robert A. Rowe evaluated a portion of the canal located within the APE of the Mount Signal Solar Hybrid Plant. Additionally, EPG identified and recorded several features related to the Westside Main canal system. A site record update for P-13-008334 includes: Fig Canal, Fern Canal, Wixom Drain, Diehl Drain, Fern Side Drain, Fig Drain, Dixie Drain 3, Dixie Drain 3A and Dixie Drain 3C. In addition, EPG includes other contributing elements such as concrete laterals and spiles. Regarding significance, EPG determined that the Westside Main canal is eligible under Criterion A, for its potential to provide information about the settlement and economic development in the area and thus the transition of desert lands into irrigated area, thus affecting the local economy and subsistence.

December 2009
URS Corporation
URS Corporation visited the canal during a Class III inventory related to a proposed solar project. Along with fieldwork, URS also examined and compared numerous historic maps of the area, including the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1957 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County. It was determined that the general course of the canal has remained consistent for most of its history.
Jeremy Hollins of URS evaluated the resource as follows:

> *"...Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.*

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal. The addition of a non-historic period pipeline and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal..."

".....In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists)."

The significance statement for each of these resources regurgitates the same information found on the form for the Westside Main, inserting the name of the currently discussed resource.
The statement is as follows:

"...Overall, the _____ does not appear to retain a sufficient amount of its historic integrity to convey its significance due to improvements and reconstruction that may have occurred since the 1950s, though, an intensive survey of the entire _____has not occurred. The portion of _____ also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (Though, it still retains sufficient historic integrity aspects of location and materials). Based upon historical documentation, regular dredging and widening of canals and drains were necessary and often performed to alleviate problems of silt and build-up. Due to these and other improvements over time, the workmanship and association of the historic-period property has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance. Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear All-American Canal or Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA.
In summary, the portion of _____does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the addition of a proposed water line adjacent or perpendicular to the existing _____would not create a new adverse effect or significant impact to the portion of the historic-period property that bisects the Evan Hewes Highway".

January, 2010
C. Bowden-Renna
The canal was once again visited during a survey conducted by AECOM related to the IID Dixieland 230 kV Transmission Line and Substation Expansion Project. The resource was described as follows:

> *"...Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999")."*

November 04, 2011
Heather Thomson
The canal was revisited again in November 2011 during a cultural resource survey related to the Campo Verde Solar Project. An approximately 341' section of the canal falls within the survey area. The section of canal inspected consists of an earthen, unlined canal. In addition, a turnout with concrete wing walls provides water to a large concrete block reservoir, which in turn flows into a lateral canal located west of the Westside Main. This lateral, the reservoir and the remains of an electrical panel and tin shed roof appear abandoned and no longer in use.

The Westside Main Canal joins the All-American Canal near the western edge of the Imperial Valley and serves the western part of the IID water service area. Water is released from the Westside Main canal into the heading of each lateral canal. From the lateral canals, zanjeros measure and divert the required amount of water from the lateral canal through individual customer delivery gates.

The All American Canal is eligible for State inclusion on the NRHP and by extension, the Westside Main Canal as well. The portion of Westside Main Canal inspected during the current survey found the resource appeared to retain sufficient historic integrity aspects of location and materials.

This resource has not been surveyed in its entirety; however, Shannon Davis (ASM Affiliates, Inc.) did evaluate the segments within the Campo Verde Solar Project APE and found that the Westside Main Canal "is eligible for listing in the NRHP and CRHR under Criterion A/1 for its significance in the development of the Imperial Valley. The earthen canal was integral to the development of irrigated commercial agriculture since its construction in the early 1900s. Under the themes of agriculture and economic development, ASM's professional, independent recommendation is that this section of the Westside Main Canal is eligible for the NRHP and CRHR on the local and state levels."

Davis, Shannon, Jennifer Krintz, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin. 2011. Impacts on Historic Resources on Private Lands, Campo Verde Solar Project, Imperial County, California.

Mitchell, Patricia T. 2011. Inventory Report of the Cultural Resources Recorded within the Campo Verde Solar Project, Imperial County, California.

State of California —The Resources Agency **Primary #** P-13-008334 UPDATE
DEPARTMENT OF PARKS AND RECREATION **HRI#**
PHOTOGRAPH RECORD **Trinomial** CA-IMP-7834

 Resource Name or #: Westside Main Canal
Year 2011
Camera Format: Digital – Canon Powershot SD1300 IS Digital ELPH 12.1 megapixel
Negatives Kept at: kp environmental, LLC. 2387 Montgomery Ave, Cardiff By The Sea, CA 92007

Mo.	Day	Frame	Subject/Description	View
11	04	2820	West bank of Westside drain	
11	04	2821	Isolated white glassware no point	D
11	04	2822	Dr. Pepper bottle in bank of Westside Drain	D/E
11	04	2823	East end of concrete irrigation canal runs e-w	
11	04	2824	Mushrooms for Erica	
11	04	2825	West end west side drain	E
11	04	2826	West end of concrete irrigation canal fed by gate 1 on Forget me not	W
11	04	2827	Forget me not gate 2 feeds east-west concrete irrigation ditch to eat	W
11	04	2827	Irrigation ditch west end	W
11	04	2828/2829	Square box culvert on SW corner of Hyde and Hardy	
11	04	2830/2831	West main east bank	S/W
11	04	2832-2834	West side of west main concrete block reservoir feeds east-west concrete irrigation canal to west. It is no longer in use. Old tin shed roof and electric panel no longer in use	W-S
11	04	2835	Gate on west bank of west main	

IMG_2830 view to south.
Westmain Canal taken from east bank.

IMG_2832 view to west.
Reservoir, shed roof and panel.

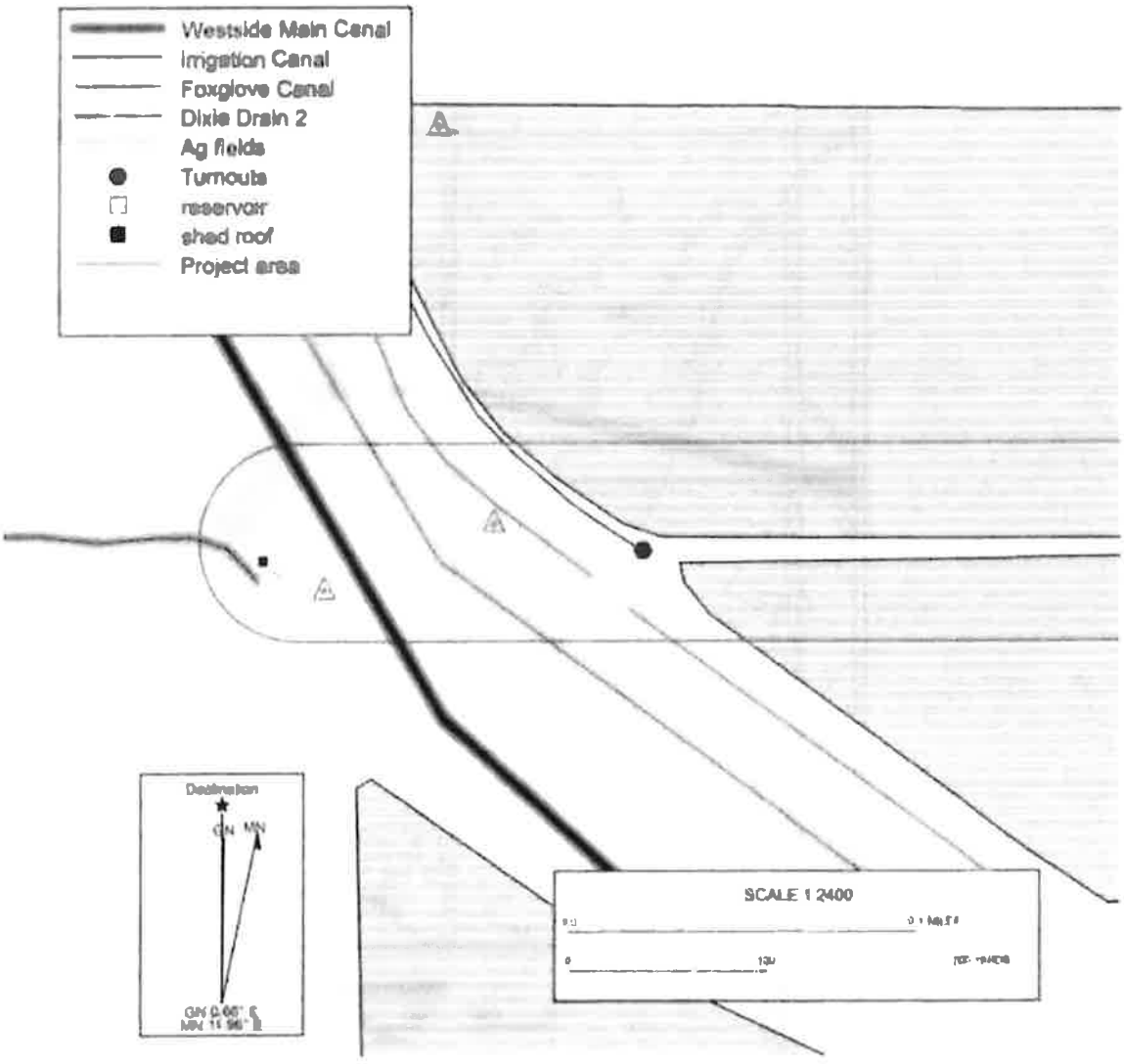
State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

 *Resource Name or # (Assigned by recorder) Westside Main Canal (portion)

*Drawn By: Heather Thomson *Date: 11/07/2011



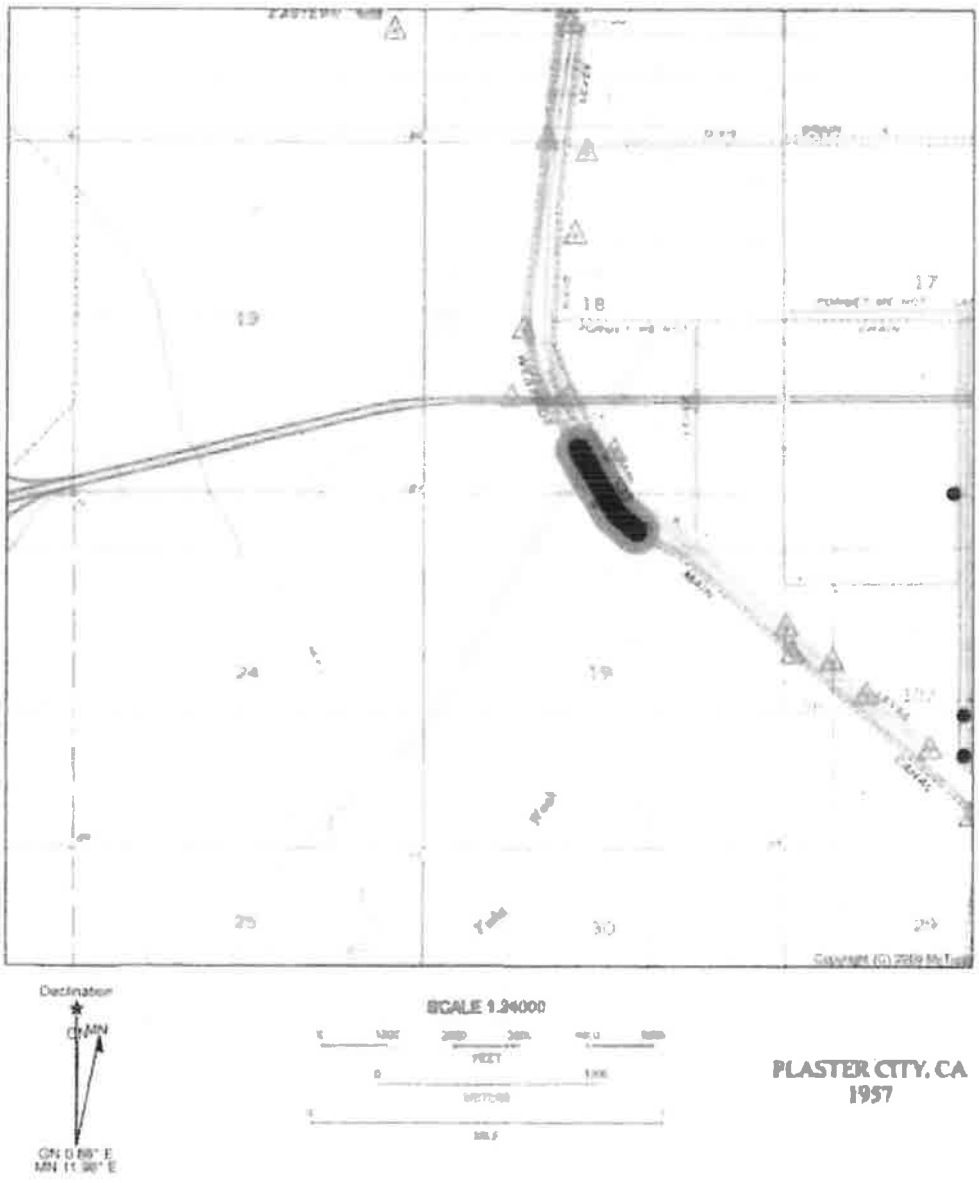
State of California —The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834

Page 9 of 9 *Resource Name or # (Assigned by recorder) Westside Main Canal (portion)

*Drawn By: Heather Thomson *Date: 11/07/2011



EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

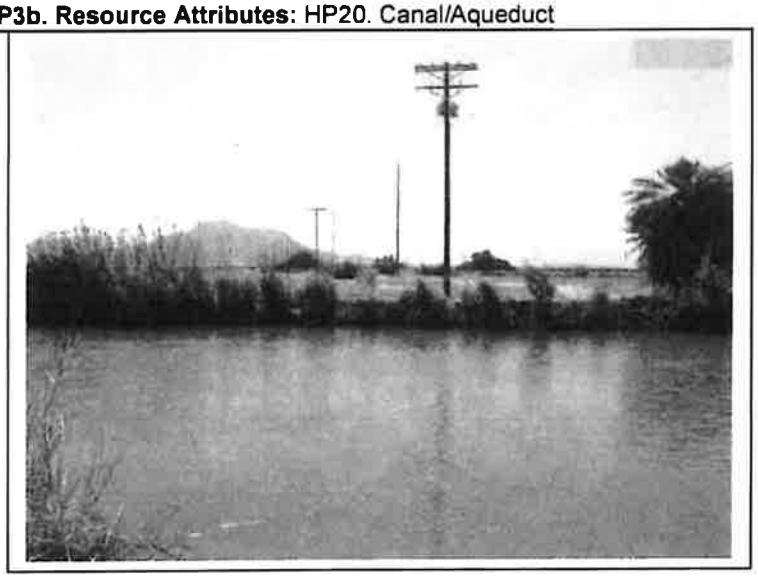
Primary # P-13-008334 UPDATE (Westside Main Canal)
HRI #
Trinomial CA-IMP-7834 UPDATE (Westside Main Canal)
NRHP Status Code: 3D (Westside Main Canal) 6Z (Westside Drain)

 ***Resource Name or # (Assigned by recorder)** Westside Main Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

P1. Other Identifier: ***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Plaster City, Seeley, Yuha Basin, Mount Signal **Date:** 1957; **T** 16S; **R** 11E; **of Sec.** Plaster City 7, 18, 19, 20, 107; Seeley 107; Yuha Basin 29; Mount Signal 29, 28, 33, 34, 35; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 614961.43 **mE** / 3628012.34 **mN**; South end: 621656.46 **mE** / 3621746.51 **mN**

***P3a. Description:** Westside Main Canal was constructed in circa 1907 as one of four canals constructed for the earliest irrigation system in the Imperial Valley, in Imperial County, California It was later connected to the All-American Canal which extends westward from Yuma, Arizona north of the U.S.-Mexico border and terminates at the Westside Main Canal. The segment of the Westside Main Canal documented is approximately 5.5 mi. long, beginning just north of its intersection with Interstate extending southeast approximately .5 mi. past its intersection with Liebert Road and the Fern Canal in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good. The canal system also includes drains that remove the salinity from the agricultural lands the canal and its laterals irrigate.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct



P5a. Photograph or Drawing:

P5b. Description of Photo: View of Westisde Main Canal at Leibert Rd. looking south from northern side of the canal towards the Imperial Valley Substation; Picture taken November 2, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907, 1909 El Centro 15-minute US Army Corps Topo map,

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** November 2011
***P10. Survey Type:** Intensive
P11. Report Citation: Inventory, Evaluation, and Analysis of Impacts on Historic Resources On Private Lands within the Area of Potential Effect of the Campo Verde Solar Project, Imperial County, California, ASM Affiliates, November 2011.
***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: 1907-1950 **Property Type:** Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.

P5a. Photograph or Drawing:

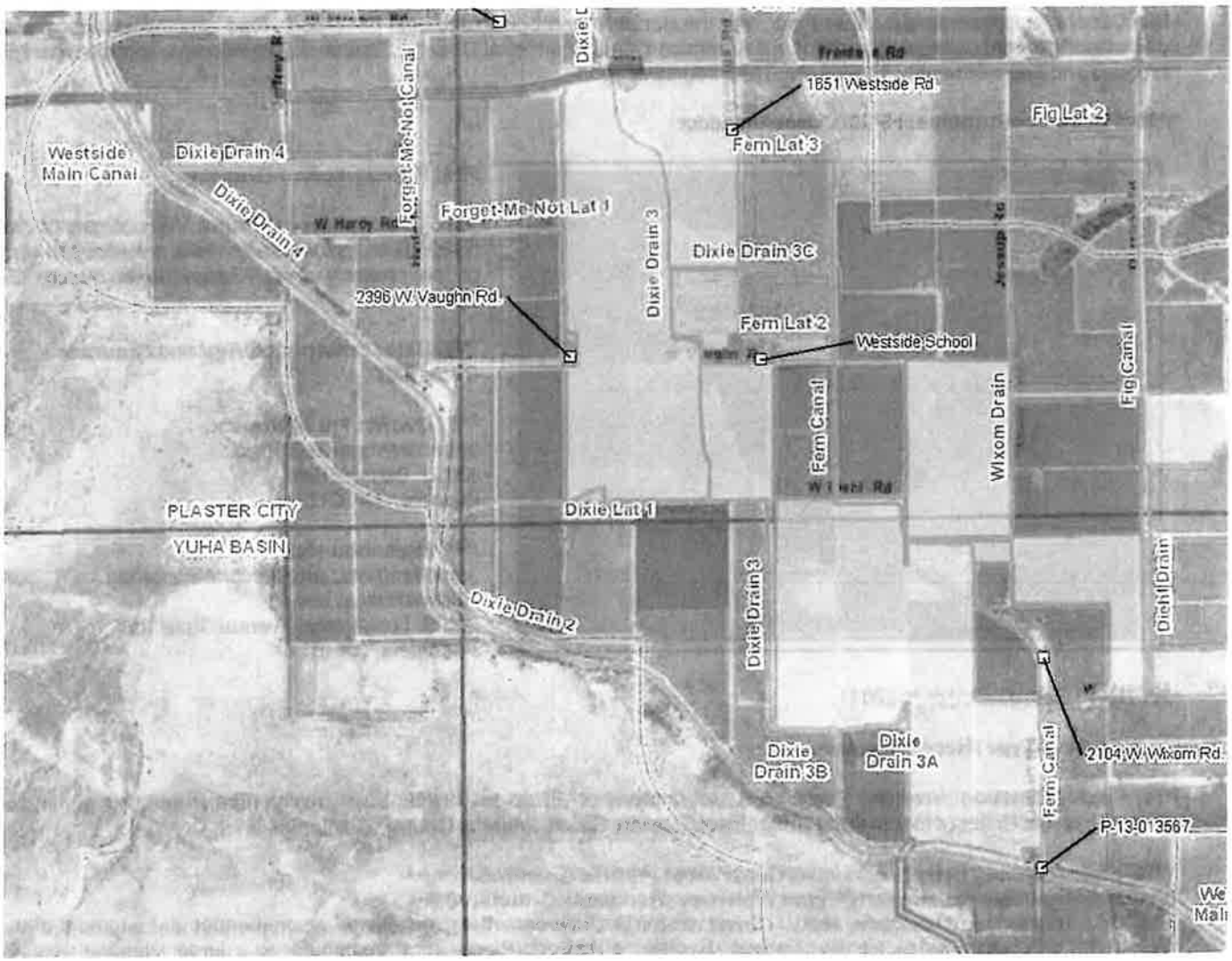
P5b. Description of Photo: View of part of the canal taken looking south from the northern part of the property area; Picture taken March 22, 2011

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE (Westside Main Canal)
HRI #
Trinomial CA-IMP-7834 UPDATE (Westside Main Canal)
NRHP Status Code: 3D (Westside Main Canal) 6Z (Westside Drain)

Page 3 of 3 ***Resource Name or # (Assigned by recorder)** Westside Main Canal and Drain
Recorded by: Jennifer Krintz, Architectural Historian **Date:** November 2011
☐ Continuation ☒ Update

Location Map of the Westside Main Canal and Drain



DPR 523A & B (1/95)

*Required Information

EEC ORIGINAL PKG

UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 1 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jenni fer Krintz Architectural Historian **Date:** April 5, 2011
☐ Continuation ☒ Update

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Mount Signal **Date:** 1957; T 17S; R 12E/13E; **of Sec.** 3, 2, 11, 12, 13, 24, 19, 20, 17, 21; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM; Zone 11S; North end: 620445.09 **mE** / 3622260.40 **mN**; South end: 625496.13 **mE** / 3613610.51 **mN**

***P3a. Description:** Westside Main Canal was constructed ca. 1907 as part of the earliest irrigation system in the Imperial Valley. It was later connected to the All-American Canal which runs east-west north of the international U.S.-Mexican borderline, as one of three main canals that receive water from the All-American Canal. This segment of the Westside Main Canal is approximately 5 miles long, with the northern end point southeast of Liebert Road and the southern end point where the canal intersects with the All-American Canal in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct

P5a. Photograph or Drawing:

P5b. Description of Photo: View of part of the canal taken looking south from the northern end of the property area; Picture taken March 22, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** April 5, 2011

***P10. Survey Type:** Reconnaissance

P11. Report Citation: Inventory, Evaluation, and Analysis of Effect on Historic Built Environment Properties within the Area of Potential Effect of the Imperial Solar Energy Center South, Imperial County, California

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: Property Type: Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 2 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** April 5, 2011
☐ Continuation ☒ Update

Location Map of Westside Main Canal

Red line indicates subject property
Map courtesy of Google Earth

UPDATE

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 1 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** March28, 2011
☐ Continuation ☒ Update

P1. Other Identifier: Westside Main Canal
***P2. Location:** ☐ Not for Publication ☒ Unrestricted
***a. County:** Imperial
***b. USGS 7.5' Quad:** Plaster City, Seeley, Yuha Basin, Mount Signal **Date:** 1957; **T** 16S; **R** 11E; **of Sec.** Plaster City 7, 18, 19, 20, 107; Seeley 107; Yuha Basin 29; Mount Signal 29, 28, 33, 34, 35; S.B. **B.M**
c. Address: N/A **City:** Imperial **Zip:** N/A
d. UTM: Zone 11S; North end: 614961.43 **mE** / 3628012.34 **mN**; South end: 621656.46 **mE** / 3621746.51 **mN**

***P3a. Description:** Westside Main Canal was constructed in circa 1907 as part of a larger canal system in the Imperial Valley which started with the construction of the All-American Canal which runs east-west north of the international U.S.-Mexican borderline. The segment of the Westside Main Canal is approximately 5 miles long, with the northern end point just south of the community of Dixieland and the southern end point 1 mile southeast of Liebert Road in Imperial County, California. The canal is approximately 8 feet deep and approximately 40 feet wide. The integrity is good.

***P3b. Resource Attributes:** HP20. Canal/Aqueduct

P5a. Photograph or Drawing:

P5b. Description of Photo: View of part of the canal taken looking south from the middle of the property area; Picture taken March 22, 2011

***P6. Date Constructed/Age and Sources:**
Circa 1907

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

***P8. Recorded By:**
Jennifer Krintz, Architectural Historian
ASM Affiliates, Inc.
260 S. Los Robles Avenue Suite 106
Pasadena, CA 91107

***P9. Date Recorded:** March 28, 2011

***P10. Survey Type:** Reconnaissance

P11. Report Citation: Assessment of Visual Impacts on the Historic Built Environment Properties within the APE of the Imperial Valley Solar Farm Project West Imperial County, California

***B10. Significance: Theme:** Agricultural Canal **Area:** Imperial County, CA
Period of Significance: Property Type: Waterway **Applicable Criteria:** A/1
In 2007, J. Burkard, H. Thompson, and J. Covert of SWCA Environmental Consultants recommended the segment of the Westside Main Canal eligible for the National Register of Historic Places as a contributor to a larger National Historic District to include the All-American Canal. ASM concurs with this finding and recommends the Westside Main Canal eligible for the National Register of Historic Places and the California Register of Historic Resources under criteria A and 1, respectively for its association with the irrigation of the Imperial Valley.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code: 3D

Page 2 of 2 ***Resource Name or # (Assigned by recorder)** Westside Main Canal
Recorded by: Jennifer Krintz, Architectural Historian **Date:** March 28, 2011
☐ Continuation ☒ Update

Location Map of Westside Main Canal

Red line indicates subject property
Map courtesy of Google Earth

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #: P-13-008334
HRI# _____
Trinomial CA-IMP-7834

Page 1 **of** 1 ***Resource Name or #:** (Assigned by recorder)

***Recorded by:** C. Bowden-Renna ***Date:** 1/2010 ☐ Continuation ■ Update

Site P-13-008334 was recorded by Jill Hupp in 1999. This site is the Westside Main Canal, which was built about 1906 as a part of the Imperial Irrigation District canal system within Imperial Valley. During the current survey effort, the portion of the canal within the project area is earthen lined and is still in use today. While the canal has been recommended eligible for the National Register of Historic Places (NRHP), the portion of the canal within the proposed project area was examined in 1997 and 1998 and was recommended not eligible for the NRHP due to lack of integrity (Hupp 1999). Caltrans also evaluated a portion of the canal as it crosses under I-8. Caltrans determined that, under California Environmental Quality Act (CEQA), the portion of the canal under I-8 is not a historic resource and therefore is not eligible for the NRHP (Hupp 1999).

Bowden-Renna, Cheryl
2010 *Cultural Resources Investigations Class III Report for the IID Dixieland 230 kV Transmission Line and Substation Expansion Project, Imperial County, California.* Prepared by AECOM.

Hupp, Jill
1999 P-13-008334 Site Form. Form on file at the South Coastal Information Center.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial CA-IMP-7834H UPDATE
NRHP Status Code _____
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 14 *Resource Name or #: (Assigned by recorder) Portion of Westside Canal (CA-IMP-7834H)

P1. Other Identifier: N/A

*P2. Location: ☐ Not for Publication ☒ Unrestricted

*a. County Imperial and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Plaster City Date 1976 T 16S R 12E ; ___ ¼ ___ ¼ of S7 ; SB B.M.

c. Address N/A City N/A Zip N/A

d. UTM: (Give more than one for large and/or linear resources) Zone 11 , 615024 mE/ 3628650 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

The portion of the Westside Main Canal (CA-IMP-7834H) surveyed is approximately one mile long and runs north-south within the Dixieland area of Imperial County. The TRS and UTM provided above are the approximate centerpoint of the portion of the canal surveyed.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

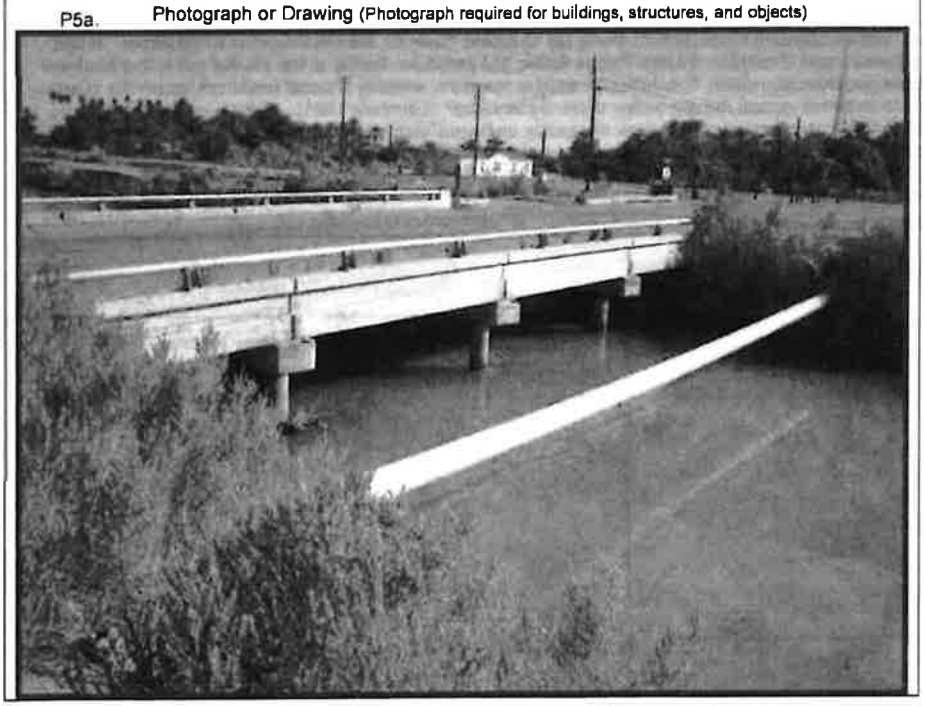
The portion of the Westside Canal in the historic architecture APE is a small portion of a much larger 20-mile historic-period linear property that ultimately travels from the International Border area to the Brawley-Westmoreland area. Accordingly, formal recordation of the entire Westside Canal was considered unnecessary and outside of the project scope, since the project would not directly affect (e.g., alter, remove, change use or physical features, cause deterioration) the entire 20-mile historic-period property. Rather, the portion of the historic-period property within the historic architecture APE was studied within the context of the whole property only.

This portion of the Westside Main Canal is an earthen-bank irrigation canal that is approximately 25 feet wide and 10 feet deep (portions of the canal outside of the APE feature concrete-lining). It primarily has a U-shaped form. SEE CONTINUATION SHEET 523L (PAGE 3).

*P3b. Resource Attributes: (List attributes and codes) HP20. Canal/Aqueduct

*P4. Resources Present: ☐ Building ☒ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (view, date, accession #)
View to northeast, Evan Hewes Highway Crossing, March 2009

*P6. Date Constructed/Age and Source:
☒ Historic ☐ Prehistoric ☐ Both
Approximately 1908
1908 El Centro map

*P7. Owner and Address:
Bureau of Reclamation
27708 Jefferson Ave., Ste. 202
Temecula, CA 92590

*P8. Recorded by: (name, affiliation, and address)
URS Corporation
1615 Murray Canyon Rd., Suite 1000
San Diego, CA 92108

*P9. Date Recorded: 12/2009

*P10. Survey Type: (Describe)
Pedestrian Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none")

Mutaw, Robert J. (Ph.D.), Elizabeth B. Roberts, Gordon C. Tucker Jr., Ph.D., Brian Shaw, Terrie Bagwell, Colin O'Hanlon, Rachael Nixon, Gary Fink, Jeremy Hollins, Mark Neal. 2010 Draft Final Class III Confidential Cultural Resources Technical Report for the Imperial Valley Solar (formerly Solar 2), Imperial Valley County. URS Corporation. Technical report prepared for Tessera Solar (Applicant). Submitted to the Bureau of Land Management – El Centro Field Office, El Centro, CA. Copies available from the Bureau of Land Management – El Centro Field Office, El Centro, CA.

*Attachments: ☐ NONE ☐ Location Map ☒ Continuation Sheet ☒ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

* Required information

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # _____
HRI # _____
Trinomial CA-IMP-7834H UPDATE

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

*Resource Name or #: (Assigned by recorder) Portion of Westside Canal (CA-IMP-7834H)

B1. Historic Name: Encina Canal

B2. Common Name: Westside Main Canal

B3. Original Use: Irrigation Ditch B4. Present Use: Irrigation Ditch

*B5. Architectural Style: N/A

*B6. Construction History: (Construction date, alterations, and date of alterations)
Actual construction date of this portion of the Westside Canal is unknown at present. However, by 1908, this portion of the Westside Main Canal was constructed. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of this portion of the Westside Main Canal was not significantly altered. Based on the 1915 El Centro 15-minute USGS quadrangle maps, Albert G. Thurston's Imperial Valley Tract Map (1914), Blackburn's Map of Imperial County, California (1919, 1929, 1936, 1943, 1955 editions), the 1949 and 1976 USDA Aerial Collection, the 1967 Painted Gorge 7.5-Minute USGS quadrangle map, and the 1964 Western Portion of Blackburn's Map of Imperial County, the general course of the canal has remained consistent for most of its history.

*B7. Moved? ☒ No ☐ Yes ☐ Unknown Date: N/A Original Location: N/A

*B8. Related Features:
There is one related feature, the West side Main (WSM) Pump 6. The WSM Pump 6 is located in Township 17 South, Range 12 East, Section 3 and runs north-south from the south side of Mandrapa Road for approximately 0.34 miles, then east-west for approximately 0.25 miles. The WSM Pump 6 appears to be part of the larger West Side Main Canal and Fern Canal systems, which traverse the Dixieland area and converge in El Centro. SEE CONTINUATION SHEET 523L (PAGE 6)

B9. Architect: N/A b. Builder: Unknown

*B10. Significance: Theme N/A Area Imperial County
Period of Significance N/A Property Type Irrigation Ditch Applicable Criteria N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
In 1849, Dr. Oliver M Wozencraft, on his way to the gold fields of San Bernardino from New Orleans, traveled through the Imperial Valley and noted the region's soil fertility and potential for arability. He was likely the first person to recognize the Imperial Valley's potential for agriculture. Wozencraft believed he could construct a gravity canal from the Colorado River to the Imperial Valley, because the river was at a higher elevation than the valley (Garnholz 1991). Wozencraft's opinion of the fertile valley was reaffirmed in 1853 when Jefferson Davis, U.S. Secretary of the War Department, ordered a scientific expedition along the Colorado River for the placement of fortifications. In this expedition, led by Lieutenant R. S. Williamson and Professor William Phipps Blake, the particular fertility of the alluvial soil at the southern end of the Salton Sink was noted. Blake prophetically noted, "it is indeed a serious question, whether a canal would not cause the overflow once more of a vast surface, and refill, to a certain extent, the dry valley of the ancient lake" (Garnholz 1991). Blake's expedition scientifically described how the Colorado River had meandered through the valley, delivered enough silt to block the mouth of the Gulf of California, and recognized that the banks of the current Colorado River course were much higher than that of Imperial Valley (Smith 1979). During the nineteenth century, the Colorado River historically flooded the valley several times, specifically in 1840, 1842, 1852, 1859, and 1867 (Garnholz 1991). SEE CONTINUATION SHEET 523L (PAGE 3 AND 4).

B11. Additional Resource Attributes: (List attributes and codes) N/A

*B12. References:
SEE CONTINUATION SHEET 523L (PAGE 6)

B13. Remarks:
None

(Sketch Map with north arrow required)
SEE CONTINUATION SHEET 523L (PAGE 5)

*B14. Evaluator: Jeremy Hollins
*Date of Evaluation: 12/2009

(This space reserved for official comments)

* Required information

P3a. Description (Continued)

This portion runs perpendicular to Evan Hewes Highway (SH 80) and a San Diego and Arizona Railroad crossing (known as Union Pacific crossing 921-452D).

The banks feature earthen levees of natural vegetation, which have been reshaped and widened by modern dredging and grading activities. This portion is gravity-fed (since no control infrastructure was identified in the vicinity). Of note, immediately south of the Evan Hewes Highway crossing is a non-historic period gas pipeline (approximately one foot in diameter) which bisects the canal.

This pipeline disrupts the feeling, setting, visual narrative, and historic viewshed of this portion of the canal. Additionally, along the west bank are two non-historic period pumps, which are most likely used to divert water to/from nearby agricultural fields. The crossing at Evan Hewes Highway is an example of a non-historic period reinforced concrete girder bridge, characterized by a simple span, five abutments/bents (supported by five cylindrical columns), a metal guardrail, and square piers at the bridge portals. The crossing appears to be 40 years old. The crossing is in poor condition due to environmental effects (sun and heat exposure), exposed rebar, and a minimally-maintained travel surface. The crossing shows evidence of chipping, cracking, and spalling. The San Diego and Arizona Railroad crossing is also a non-historic period reinforced concrete girder bridge, and appears to be constructed within the past 30 years. The grade separation features a simple span, four abutments/bents (supported by three angular cylindrical columns), and cable-wire guardrails. The grade separation shows evidence of chipping and cracking, and shows extensive damage from insect infestation and environmental effects (sun and heat exposure). Overall, the portion of the Westside Main Canal is in good condition, but has been affected by dredging and grading activities and non-historic period construction and features, including the pipeline and the crossings.

B10. Significance (Continued)

With the information gathered from the scientific expedition, Wozencraft pressed California into granting him approximately 1,600 square miles or roughly ten million square acres (which included present-day Imperial County and portions of present-day Riverside County). However, the federal government retained title to the land in this region of California and Wozencraft was unable to convince Congress, even with the results of the scientific analysis of the valley, to support his efforts. Wozencraft then approached George Chaffey to finance the project. Chaffey, who would successfully spearhead irrigation projects in San Bernardino County and Australia, was also unconvinced and noted that the "Imperial Valley was to [sic] hot for white men to prosper" (Garnholz 1991). Chaffey would later change his mind and near the end of the nineteenth century led the effort to irrigate the valley. Still undeterred, Wozencraft hired the Los Angeles County surveyor, Ebenezeer Hadley, in 1860 to draw up a plan to irrigate the valley by diverting the Colorado River through the Alamo River (Garnholz 1991). Wozencraft eventually left California for Washington, D.C. to lobby Congress. He died several years later without ever convincing Congress and never seeing his dream fulfilled. While Wozencraft failed to create an irrigation network, his efforts during the mid-nineteenth century led the way for future development efforts.

In 1896, a group of investors formed the California Development Company (CDC) and followed Wozencraft's earlier attempts to irrigate the Imperial Valley. The group was led by Engineer Charles R. Rockwood and George Chaffey and they wanted to establish a canal, referred to as the "main channel," constructed from the Colorado River through the Imperial Valley using an ancient overflow channel of the Colorado known as the Alamo River (Sperry 1975). Chaffey, to avoid conflict with the Mexican government over land development since the canal was to be developed almost entirely on the south side of the border, established a subsidiary to the CDC known as the Sociedad de Irrgación y Terrenos de la Baja California (Smith 1979). By 1901, portions of the Imperial Valley were irrigated and attracted many new settlers and farmers from the Midwest.

One of the main problems throughout the entire canal venture project was constant silting, which needed consistent dredging of muck. The solution was to build a wooden, although supposedly temporary, structure referred to as the "Chaffey Gate" (Sperry 1975; Tout 1932). The year the gate was constructed (1904) was one of the wetter years on record and the gate was constructed too high on the riverbank. Arguments at the time seem to suggest that Chaffey had the gate constructed correctly, but that because the water level was high at the time, the engineer in charge of the project placed several removable flashboards in the bottom of the gate, which silted over rapidly (Sperry 1975). The next few years were very dry causing the canals' water level to drop precipitating the construction of more diversion and gates around the Chaffey gate. The year 1905, however, was extremely wet causing several flooding episodes with the fifth one completely destroying all remaining gates and dams along the canal network system. The Colorado River, originally flowing toward the Gulf of Californian, had changed its course and started flooding the Alamo River to the Salton Sink in Imperial Valley.

By 1905, over 80 miles of irrigation canals had been built, with more than 100,000 acres under cultivation. However, the design and construction of several poorly planned canals and ditches made water delivery service unreliable and inefficient. Large quantities of silt would block the canals' intakes and reduce the amount of water reaching Imperial Valley crops. A widespread flood in the winter of 1905-1906 caused extensive damage to railroad property, farmlands, and the newly constructed canal system. The CDC did not believe it was practical to reconstruct several of the canals, and as an alternative decided to enlarge the Westside Main Canal, which at the time was a wooden flume conveyance system located south in Mexico and known as the Encina Canal (Hupp 1999). The extension of the Westside Canal into the United States approximately 1906 was intended to alleviate irrigation problems, and spark development of the county west of the New River. By 1908, the Westside Main Canal extended into the historic architecture APE. It was constructed as an earthen canal, banked by earthen levees, approximately 25 feet wide and 10 feet deep. Throughout the early twentieth century, the general alignment of the Westside Main Canal within the historic architecture APE was not significantly altered.

The Southern Pacific Railroad Company threatened a lawsuit against the CDC for flooding their railroad line along the Salton Sink in 1907. A year later, CDC reorganized and the board was taken over by Southern Pacific men, including Epes Randolph, who was the assistant to the president of the Southern Pacific (Sperry 1975). The task of returning the Colorado to its natural course heading toward the Gulf of California was such a daunting and expensive quest that the Southern Pacific eventually ended its association with the CDC. The Southern Pacific did, however, request over $3 million from the U.S. government for expenses incurred in turning the Colorado back toward the Gulf; the government awarded them $1 million 22 years later (Sperry 1975; Tout 1932). Only the construction of the Hoover Dam (then known as the Boulder Dam) in 1935 allowed for more effective control of the Colorado River for irrigation purposes.

B10. Significance (Continued)

The Imperial Irrigation District (IID) was organized in 1911 to acquire the land rights of the California Development Company (CDC), and its Mexican subsidiary Sociedad de Irrigación y Terrenos de la Baja California, from the Southern Pacific. By the mid-1920s, IID was delivering water to over 500,000 acres of arable land (Imperial Irrigation District 1998). The Boulder Canyon Act, passed in 1928, authorized the Bureau of Reclamation to construct the Boulder Dam, completed in 1935, along the Colorado River. The Imperial Valley and IID benefited greatly as the Act and the dam provided immediate hydroelectric power to the valley

The Act also provided for the construction of the All-American Canal. In 1932, the Secretary of the Interior and IID signed an agreement to allow IID the utilization of hydroelectric power from the canal system for repaying the costs of the canal construction. The All-American Canal was begun in 1934 and the first diesel-generating plant was constructed near Brawley in 1936 (Imperial Irrigation District 1998). Subsequent hydroelectric plants were constructed in 1941. The All-American Canal was completed in 1941, and the Westside Main Canal was incorporated into the All-American Canal System upon its completion. The portions of the Westside Main Canal within Mexico were removed from the IID system.

By the 1950s, regular dredging and widening of the canals were needed to alleviate problems from silt and other build-ups. This altered the structures' profiles, depth, and width, and improvements were also made to the canals' ceramic drain tiles and ditches. For example, the Fern Canal features several culverts and other structural improvement s from the 1950s through the 1980s. By the 1960s, IID had implemented a plan to start lining its earthen canals with concrete (Hupp 1999). Through the 1970s, due to IIDs ongoing preventive and reactive maintenance, many original construction materials and features were replaced. These alterations have impacted the canals' historic setting, but were necessary for the agriculture industry's expansion and success (Henderson 1968).

Based on Caltrans' earlier 1999 assessment, the Westside Main Canal, as a whole, reflects the development associated with the construction and operation of the All-American Canal between 1941 and 1950, which is primarily when the system was widened, shortened (portions in Mexico were removed from service), and modernized. The canal appears to be significant under Criterion A and C of the NRHP and Criterion 1 and 3 of the CRHR for its association with the development of irrigated commercial agriculture in the Imperial County west of the New River and as a good example of an early large-scale irrigation canal system. It does not appear to be associated with the lives of significant people or appears to be likely to yield important information in prehistory or history. Therefore, it does not appear to be significant under Criterion B and D of the NRHP and Criterion 2 and 4 of the CRHR. The canal was associated only for a short period with the CDC, from 1905 to 1911, nearly ten years after the company was established. Additionally, the canal was already in operation upon the forming of the IID, and does not reflect or convey the contributions of the IID to Imperial County.

Overall though, research conducted as part of Caltrans' 1999 assessment of the system found that the canal as a whole (while significant) does not retain a sufficient amount of its historic integrity to convey its significance due to regular dredging grading, widening, and reconstruction that has occurred since the 1950s, though, an intensive survey of the entire canal has not occurred. The portion of the Westside Main Canal within the historic architecture APE also does not appear to possess sufficient integrity of workmanship, design, setting, feeling, and association (though it still retains sufficient historic integrity aspects of location and materials). Accordingly, it does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system or individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA. While still earthen, extensive dredging and grading since the 1960s has changed the basic configuration of the canal, which has impacted its design, setting, and feeling. The canal currently has a U-shaped profile, whereas historically it was trapezoidal. The addition of a non-historic period pipeline, and highway and railroad crossings over the canal in the historic architecture APE disrupt the property's integrity aspects of setting and feeling, since these elements are outside of the property's period of significance, 1941 to 1950. Accordingly, due to these alterations, the workmanship and association of the historic-period property in the APE has been lost, since there is little physical evidence of the crafts of a particular culture or people from the period of significance, and the property is not sufficiently intact to convey the direct link between significant events and the canal.

In summary, the portion of the Westside Main Canal within the historic architecture APE does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear Westside Main Canal system (if it is determined that such a resource exists).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
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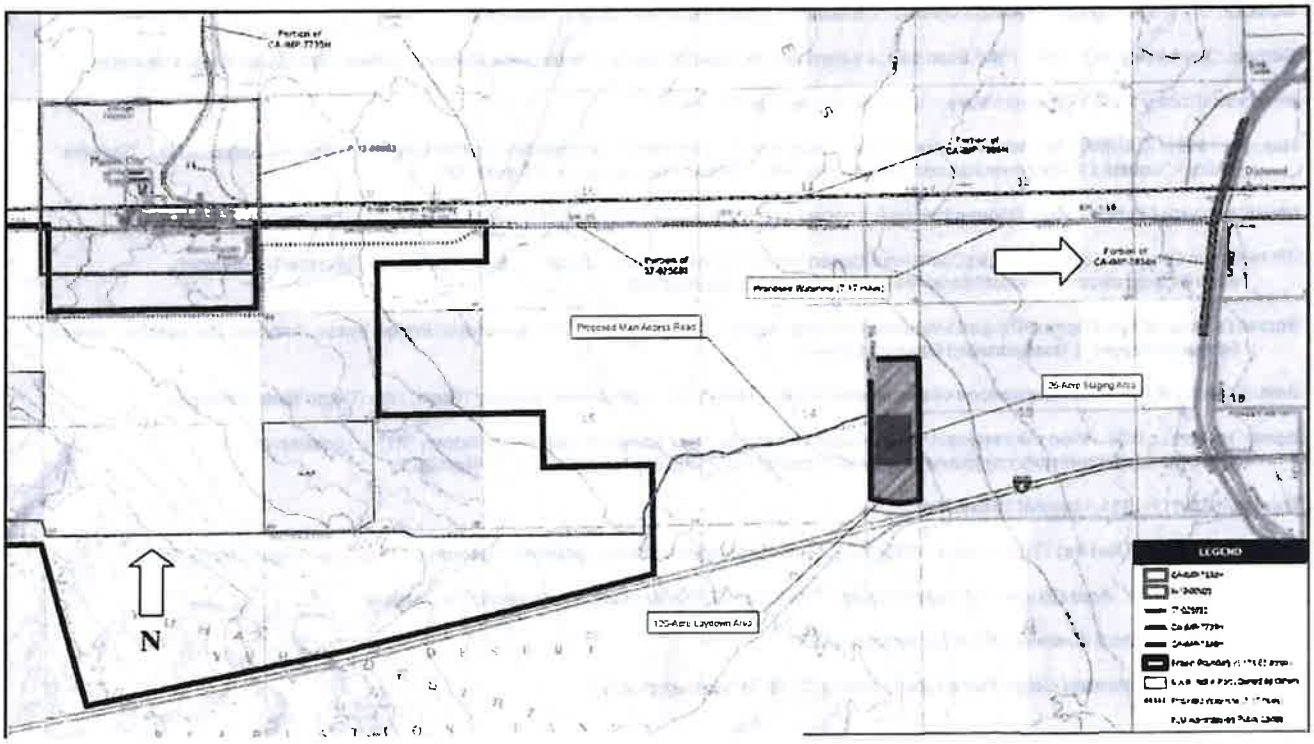
Primary # _____
HRI # _____
Trinomial CA-IMP-7834H UPDATE

Page 5 of 14 *Resource Name or #: (Assigned by recorder) Portion of Westside Canal (CA-IMP- 7834H)
*Recorded by: URS Corporation * Date: 12/2009
☐ Continuation ☒ Update

Sketch Map:

Not to scale



* Required information

B12. References

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Hupp, Jill. 1999. CA-IMP-7834 Westside Main Canal. Sacramento: Caltrans Environmental Program Imperial Irrigation District, 2006. "General History." Located at http://www.iid.com/Sub.php?pid=14. Website last visited on 27 April 2007.

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Smith, Karen J. 1979. The Reclamation of the Imperial Valley, 1849-1916. Unpublished Masters Thesis, San Diego State University.

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Thurston, Albert G. 1914. Imperial Valley Tract Map.

Tout, Otis B., 1932. The First Thirty Years—1901-1931: History of Imperial Valley, Southern California, U.S.A. San Diego: Otis B. Tout.

USDA. 1949 & 1976. Aerial Survey of Imperial County. On file at UCSD Maps and Government Publications.

USGS. 1915. El Centro 15-minute USGS Quadrangle Map.

USGS. 1943, 1957. Painted Gorge Plaster City 7.5-minute USGS Quadrangle Maps.

B6. Related Features (Continued)

However, formal recordation of the entire Westside Main Canal and Fern Canal systems was considered unnecessary and outside of the project scope, since the project would not directly affect (e.g., alter, remove, change use or physical features, cause deterioration) the historic-period properties.

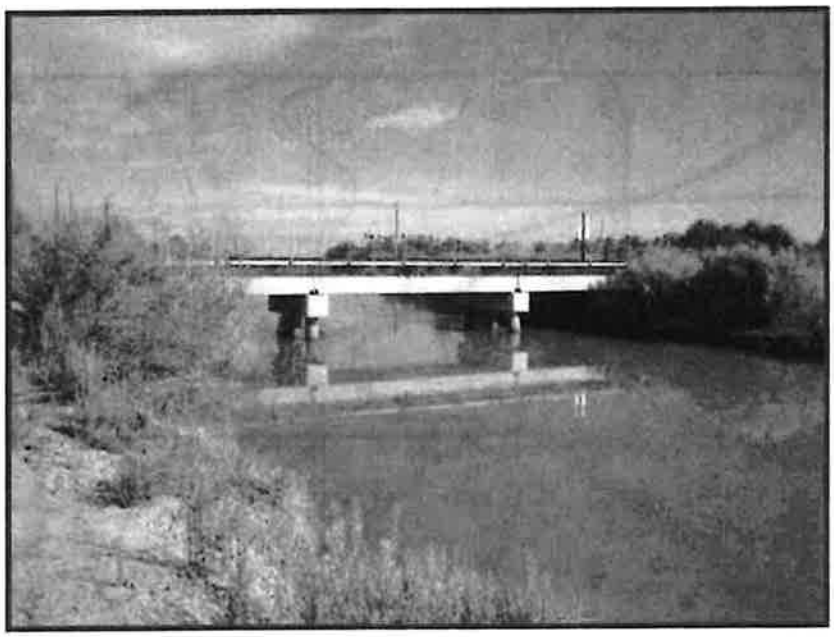
The north-south portion of the WSM Pump 6 is a concrete-lined channel that appears to be approximately five-feet wide and three-feet deep with concrete levees and earthen banks. This portion of the WSM Pump 6 is covered with dense, overgrown vegetation consisting of wild grasses and weeds. Due to the density of the vegetation, the shape of the channel is difficult to discern, but appears to be trapezoidal. This north-south channel shows evidence of heavy chipping, cracking, and spalling due to use and environmental effects. The north-south portion of the WSM Pump 6 terminates approximately 0.34 miles south of Mandrapa Road in a concrete ring culvert, which directs the flows westward through an inverted siphon into the east-west portion of the WSM Pump 6 (per conversation with Stephen Castillo from the Imperial Irrigation District on March 16, 2010). A metal drum pumping station is located at this terminus. Similar to the north-south portion, the east-west portion of the WSM Pump 6 is a trapezoidal concrete-lined channel that appears to be approximately five-feet wide and three-feet deep with concrete levees and earthen banks.

A metal check with slide gate is located at the origin of the east-west channel. Immediately west of the metal check, the channel bends slightly to the south then heads west again. This portion of the WSM Pump 6 is also covered with vegetation, although less overgrown than the north-south portion, and is in better condition. To the south of the origin of the east-west portion of the WSM Pump 6, there is a concrete-line structure appears to be a spillway or an intake structure, which has been filled with silt and dense vegetation, and is no longer in use.

The exact construction date of the WSM Pump 6 is unknown. However, the WSM Pump 6 appears on the 1953 aerial maps of the area but not on the 1949 aerial maps. Based on this information, it can be assumed that The WSM Pump 6 was constructed sometime between 1949 and 1953. The Imperial Irrigation District (IID) has records of a request to line the channels with concrete in 1956; thus, it can be assumed that prior to 1956, the WSM Pump 6 was an earthen channel.

In summary, the WSM Pump 6 does not appear to be individually eligible for listing to the NRHP, CRHR, or considered a historical resource for purposes of CEQA, and does not appear to be a contributing element or significant related feature/component to the larger linear All-American or Westside Main Canal system (if it is determined that such a resource exists). Further, the WSM Pump 6 is not located within the project APE and would not be affected.

Additional Photos/Images:

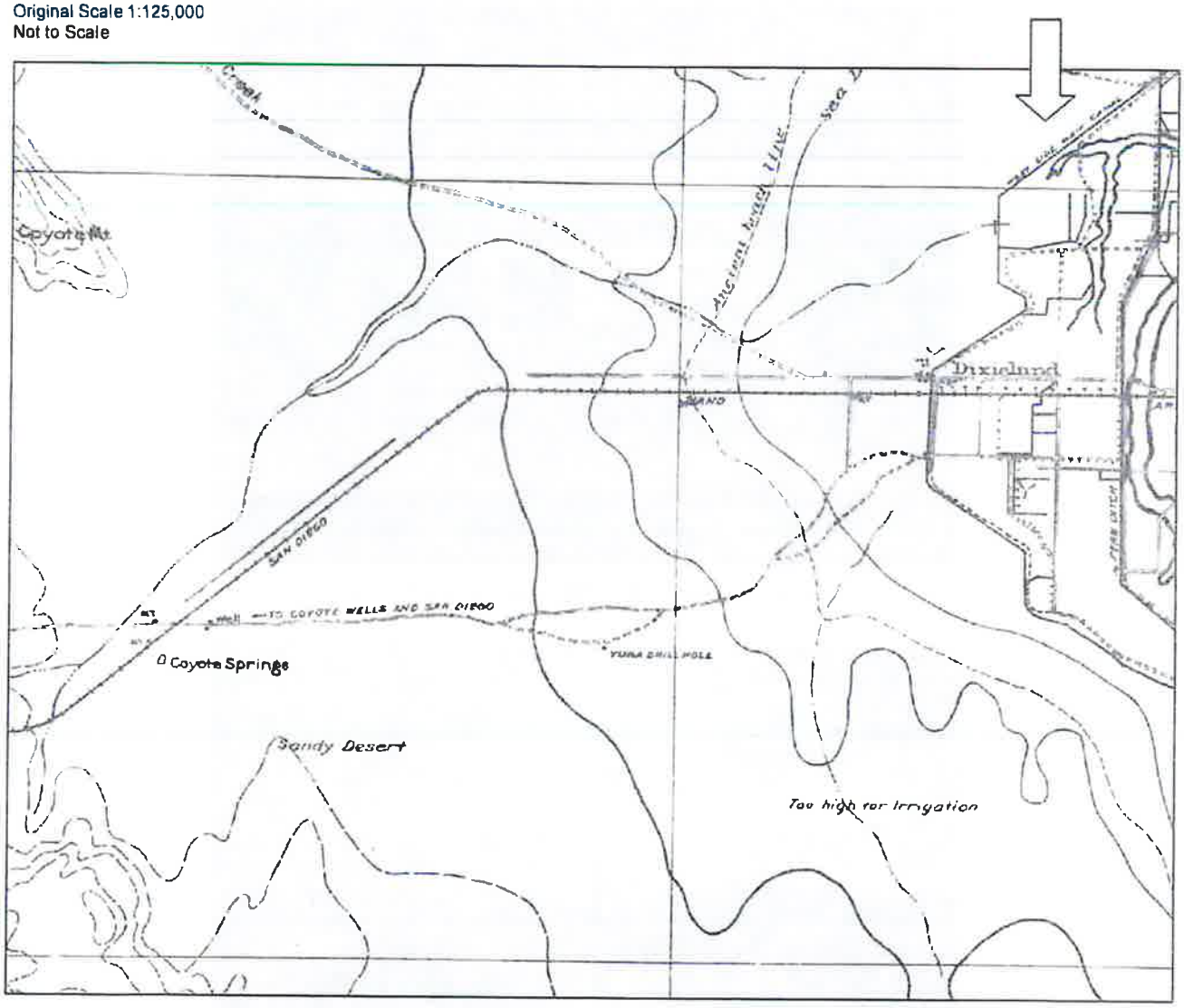


Westside Main Canal, SD- AZRR Crossing, View to the North

Westside Main Canal, View to the South

Additional Photos/Images:

El Centro 1908
Original Scale 1:125,000
Not to Scale



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Primary #
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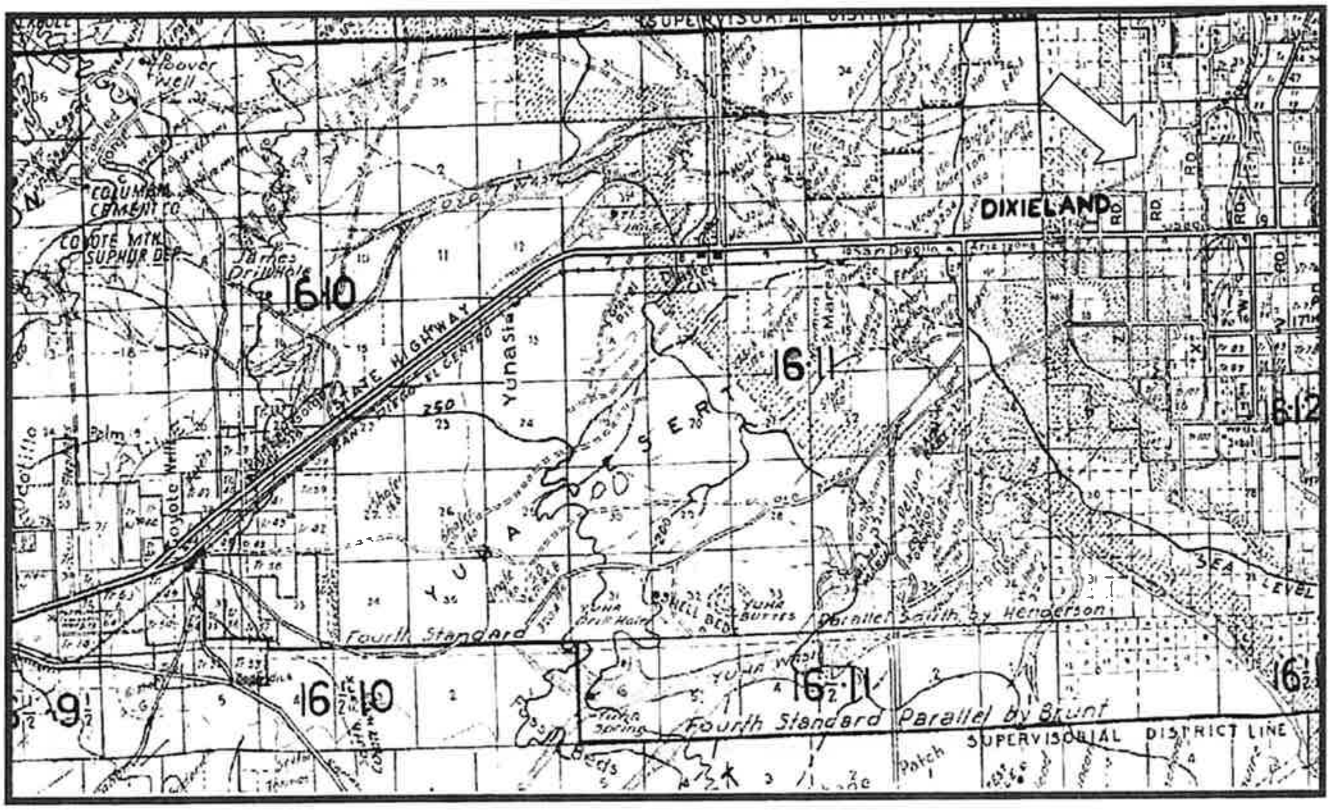
*Resource Name or #: (Assigned by recorder) Portion of Westside Canal (CA-IMP-7834H)
*Recorded by: URS Corporation
* Date: 12/2009
☐ Continuation ☒ Update

Additional Photos/Images:

Western Portion of Blackburn's Map of Imperial County, 1936
Not to Scale



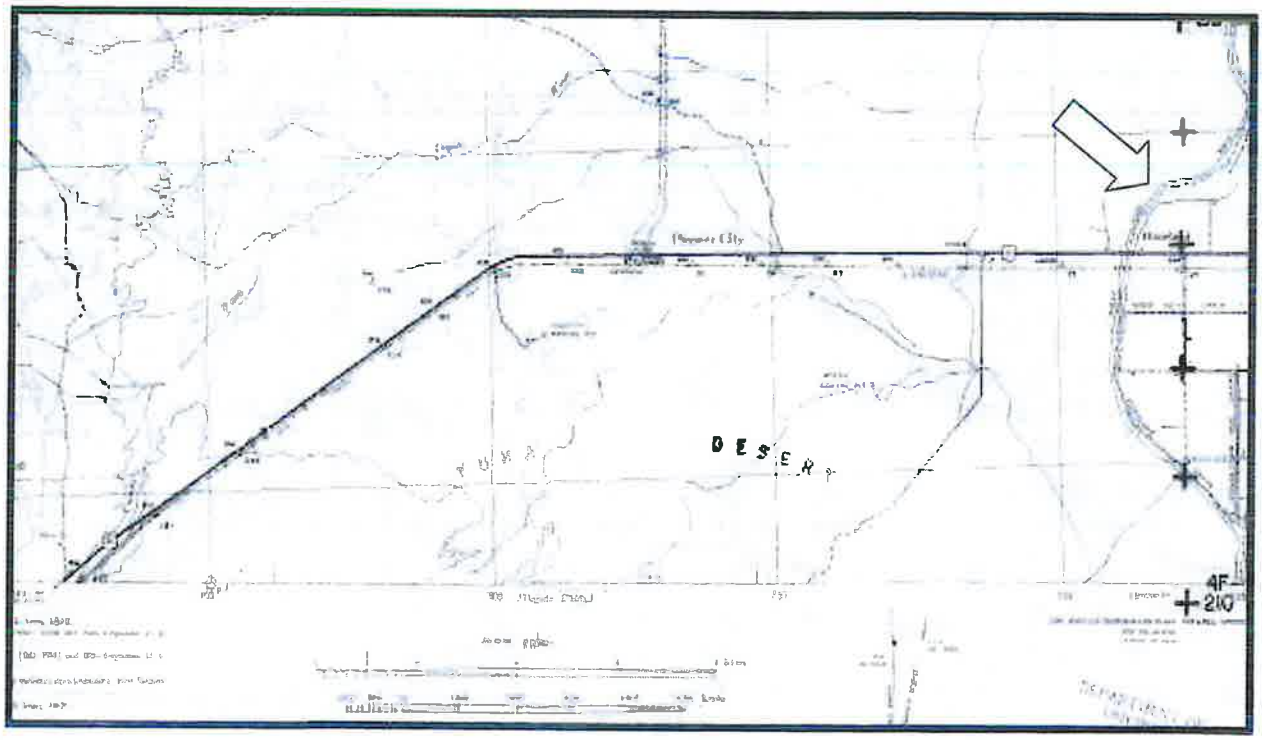
DPR 523L (1/95)

* Required information

EEC ORIGINAL PKG

Additional Photos/Images:

Plaster City map, 1943
Original Scale 1:62,500
Not to scale.



Additional Photos/Images:

View from just north of the WSM Pump 6, looking north towards Mandrapa Road

Looking south at the terminus and the north-south portion of WSM Pump 6

Additional Photos/Images:

At the east-west portion of WSM Pump 6, looking west

At the origin of the east-west portion of WSM Pump 6, looking west at the metal check

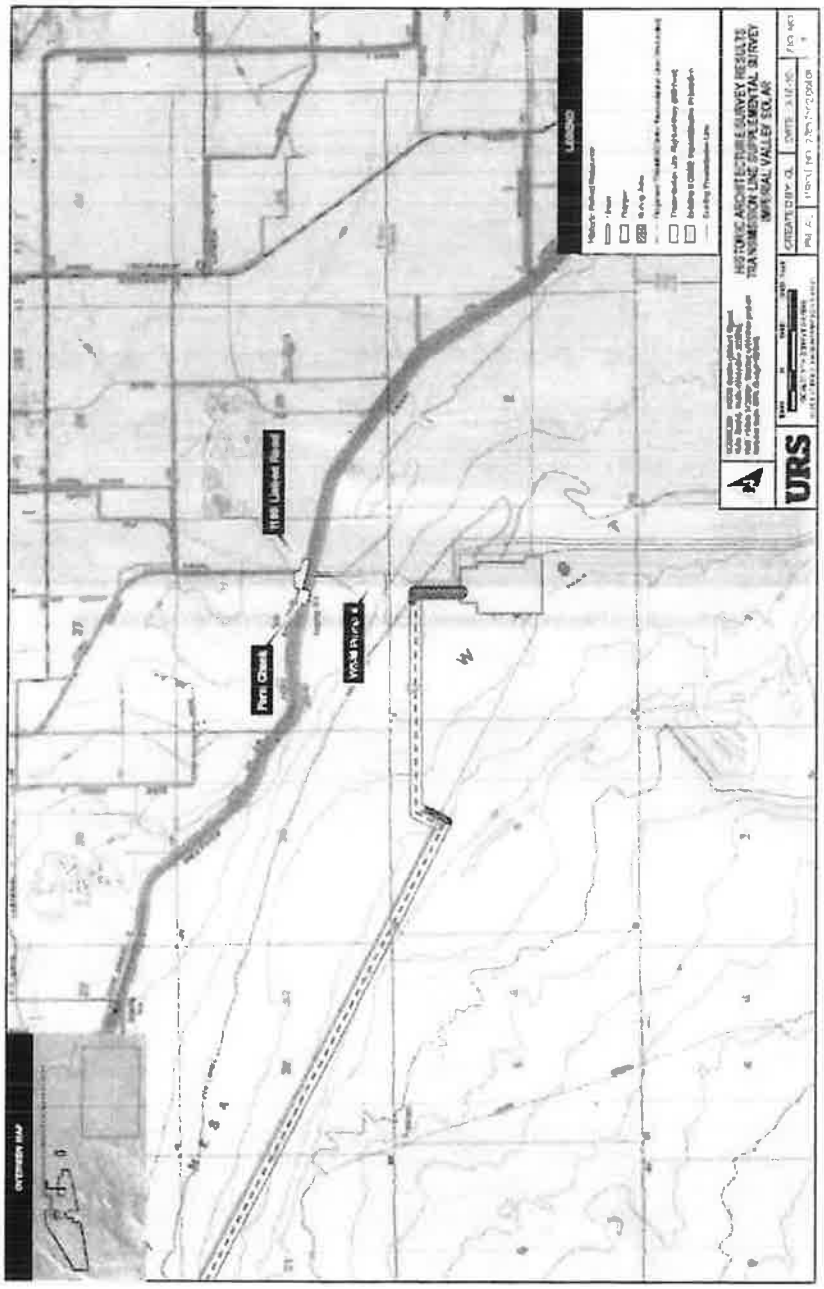
Additional Photos/Images:

At the origin of the east-west portion looking south at concrete-lined structure

EEC ORIGINAL PKG

Additional Photos/Images:

Sketch map of WSM Pump 6
Not to scale



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE
NRHP Status Code 3D/CD

Other Listings
Review Code **Reviewer** **Date**

 ***Resource Name or #:** Westside Main Canal

P1. Other Identifier: CA-IMP-7834, P-13-008334, Westside Main Canal

***P2. Location:** ■ **Not for Publication** ☐ **Unrestricted** ***a. County:** Imperial

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Seeley, CA **Date:** 1957 (P. 1979) **T** 16S; **R** 12E; NW ¼ **of** SE ¼ **of Sec** 21; S.B. **B.M.**

c. Address: City: Zip:

d. UTM: Zone: 11S; 618511 mE/ 3635113 mN (G.P.S.) NAD 83

e. Other Locational Data: Starting in the City of El Centro, travel west on Interstate 8 and exit at Drew Road. Travel north on Drew Road for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Travel west on Even Hewes Highway for approximately 2 miles and make a right turn onto Huff Road. Travel north on Huff Road for approximately 5 miles and make a left turn onto Boley Road. Travel west on Boley Road for approximately 1 mile and park. Proceed on foot, in a northeast direction, along the West Main Canal to where a 1.2 kilometer segment of the canal was surveyed starting at UTM coordinate 618511 mE / 3635113 mN and an ending at 619491 mE / 3635877 mN.

***P3a. Description:** This site form updates a 300-foot-long segment of the Westside Main Canal, part of the larger All-American Canal water conveyance system in Imperial County. Because the current project's survey corridor includes part of this canal, only that length within the survey corridor is documented, described, and evaluated.

The Westside Main Canal was built about 1907 as part of the larger Imperial Valley irrigation system, and later integrated into the All-American Canal system during its construction between 1934 and 1940. The Westside Main Canal has not been altered or modified since its last update in 1999 (Jill Hupp), when it was found not eligible for listing in the National Register (NRHP) as a sparate property or as a contributor to a district. However, in 2001 the Bureau of Reclamation and California State Historic Preservation Officer concurred that the All-American Canal is ELIGIBLE for the NRHP; by extension the Westside Main Canal is now recommended ELIGIBLE for the NRHP and California Register of Historical Resources (CRHR) under Criterion A/1 for its significance in association with development of the Imperial Valley.

***P3b. Resource Attributes:** HP20. Canal/aqueduct

***P4. Resources Present:** ☐Building ■Structure ☐Object ☐Site ☐District ■Element of District ☐Other (Isolates, etc.)

P5b. Description of Photo: Photograph # 1599, Westside Main Canal looking northeast.

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both
Main canal- 1907 with alterations

***P7. Owner and Address:**
Imperial Irrigation District
333 E. Barioni Blvd
Imperial, CA 92251

***P8. Recorded by:** J. Burkard, H. Thompson, J. Covert
SWCA Environmental Consultants
625 Fair Oaks Avenue, Suite 190
South Pasadena, California 91030

***P9. Date Recorded:** 4 / 19 / 2007

***P10. Survey Type:** Intensive Survey – 15 meter transects

***P11. Report Citation:** SWCA Environmental Consultants and Applied EarthWorks 2008: Cultural Resources Survey of Alternatives for the Sunrise Powerlink Project, San Diego, Imperial, Riverside, and Orange Counties, California

***Attachments:** ☐NONE ■Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ☐District Record ■Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ■Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

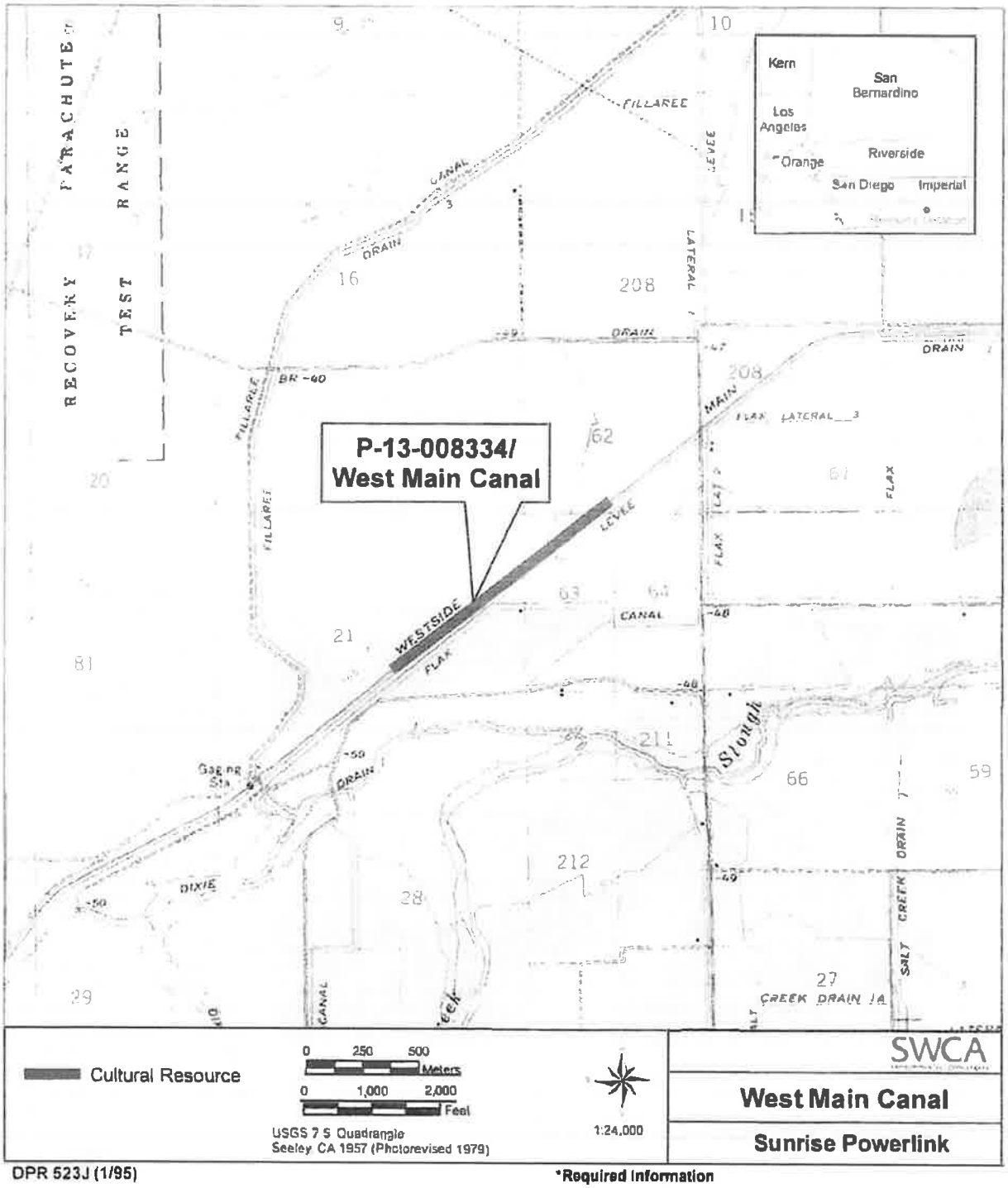
LOCATION MAP

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834 UPDATE

*Resource Name or #: Westside Main Canal

*Map Name: Seeley, CA

*Scale: 1:24,000 *Date of Map: 1957 (Photorevised 1979)



Cultural Resource

0 250 500 Meters
0 1,000 2,000 Feet

USGS 7 S Quadrangle
Seeley CA 1957 (Photorevised 1979)

1:24,000

SWCA

West Main Canal

Sunrise Powerlink

DPR 523J (1/95)

*Required Information

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary # P-13-008334 UPDATE
HRI #
Trinomial CA-IMP-7834 UPDATE

 Resource Name or #: Westside Main Canal

L1. Historic and/or Common Name: CA-IMP-7834, P-13-008334, Westside Main Canal

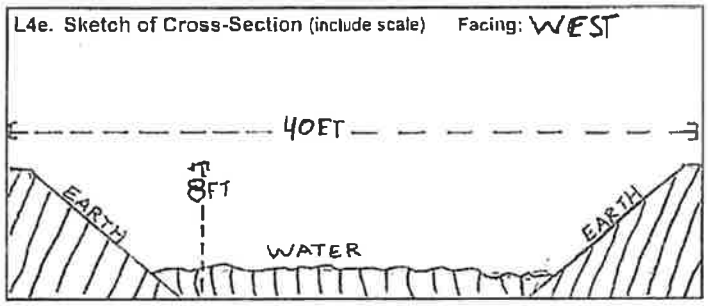
L2a. Portion Described: ☐ Entire Resource ■ Segment ☐ Point Observation **Designation:** Segment of Westside Main Canal

b. Location of point or segment: Starting in the City of El Centro, travel west on Interstate 8 and exit at Drew Road. Travel north on Drew Road for approximately 1.5 miles before turning left onto Evan Hewes Highway (old US 80). Travel west on Even Hewes Highway for approximately 2 miles and make a right turn onto Huff Road. Travel north on Huff Road for approximately 5 miles and make a left turn onto Boley Road. Travel west on Boley Road for approximately 1 mile and park. Proceed on foot, in a northeast direction, along the West Main Canal to where a 1.2 kilometer segment of the canal was surveyed starting at UTM coordinate 618511 mE / 3635113 mN and an ending at 619491 mE / 3635877 mN.

L3. Description: Westside Main Canal was built about 1907 and is earth-lined in this specific section. It forms part of the larger All-American Canal System, which provides water for irrigation within Imperial County since its completion in 1940.

L4. Dimensions:
- **a. Top Width:** 40 feet
- **b. Bottom Width:** unknown
- **c. Height or Depth:** 8 feet
- **d. Length of Segment:** 3,937 feet

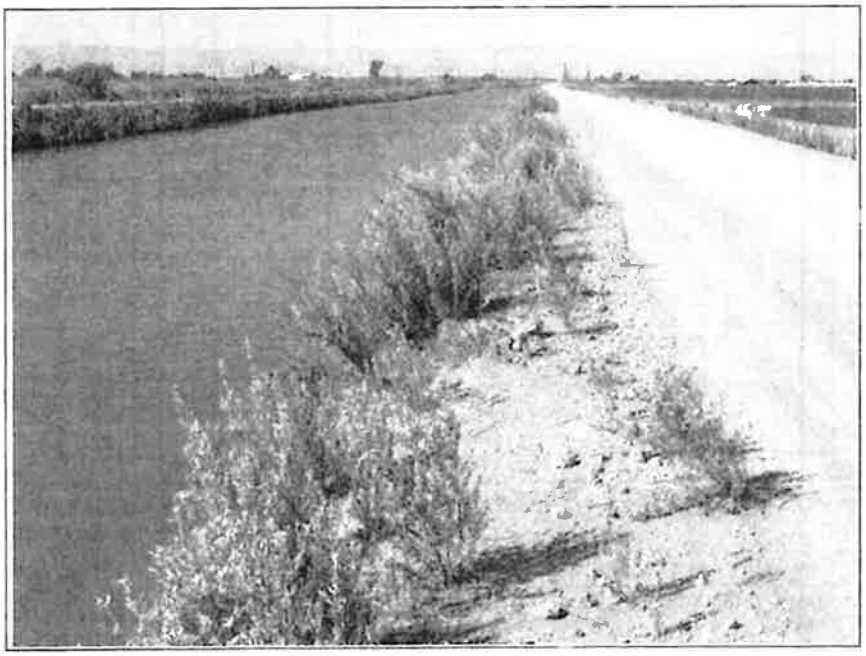
L4e. Sketch of Cross-Section (include scale) Facing: WEST



L5. Associated Resources: The Fox Glove Canal and Dixie Drain are both nearby, serving respectively as irrigation delivery and storm drainage for the Westside Main Canal. All three resources are part of the NRHP-eligible All-American Canal system.

L6. Setting: The canal is surrounded by local agriculture, and has played a significant role in bringing agriculture and people to the desert of Imperial County. A variety of crops grow along this segment, as well as ruderal vegetation along its banks. Dirt access roads run parallel to the canal along its berms.

L7. Integrity Considerations: The surveyed length of the canal is in working order, and appears to have been regularly maintained to keep the banks properly groomed and the quantity of silt minimal.



L8b. Description of Photo, Map, or Drawing: Photograph #1601, West Main Canal, looking southwest

L9. Remarks: The Westside Main Canal was previously recorded in 1999 by Jill Hupp for the Caltrans Environmental Program. Their mailing address is P.O. Box 942874, Sacramento, California 94274.

L10. Form Prepared by:
J. Burkard , G. Connel, J. Covert
SWCA Environmental Consultants
625 Fair Oaks Avenue,Suite 190
South Pasadena, California 91030

L11. Date: 4 / 19 / 07

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PHOTOGRAPH RECORD

Primary # P-13-008334 UPDATE
HRI#
Trinomial CA-IMP-7834 UPDATE

Page 4 of 4 **Resource Name or #:** Westside Main Canal UPDATE **Year** 2007

Camera Format: Digital
Film Type and Speed: Digital

Lens Size:
Negatives Kept at: SWCA Environmental Consultants, South Pasadena office

Mo.	Day	Time	Exp /Frame	Subject/Description	View Toward	Accession #
4	19	-	1599	Westside Main Canal	Northeast	N/A
4	19	-	1600	Westside Main Canal	Southwest	N/A
4	19	-	1601	Westside Main Canal, facing southwest down survey corridor	Southwest	N/A
4	19	-	1602	Westside Main Canal	Northeast	N/A

DPR 523I (1/95)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

CONTINUATION SHEET

Primary # P-13-008334 UPDATE
HRI# _____
Trinomial CA-IMP-7834 (Update)

CA-IMP-7834 was recorded by Harris of HDR in 2000. This site is described as the Westside Main Canal built in the 1920s and incorporated into the All American Canal System (CA-IMP-7130H, built between 1933 and 1938). The Westside Canal is a forty mile canal alignment that, as part of the All American Canal System, has been determined eligible for listing in the National Register of Historic Places and as a California Historic Resource. The proposed pipeline alignment will connect to the Westside Main Canal.

The Westside Canal is a forty mile canal alignment that, as part of the All American Canal System, has been determined eligible for listing in the National Register of Historic Places and as a California Historic Resource. The proposed pipeline alignment will connect to the Westside Main Canal and, therefore, the proposed project has the potential to adversely impact a significant resource. McKenna et al. recommends that the area be monitored during construction and that the design, construction, and maintenance of the proposed pipeline be planned to avoid adverse impacts to the Canal.

Jeanette A. McKenna
February 28, 2007

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: P-13-008334 UPDATE
HRI #: ___
Trinomial: ___ CA-IMP-7834__
NRHP Status Code: _____

Other Listings:
Review Code: __ _____ Reviewer: _____ Date:

Resource Name or #: (Assigned by recorder) SDY-S-10: Westside Main Canal

P1. Other Identifier: None

P2. **Location:** ■Not for Publication □Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
a. **County:** Imperial
b. **USGS 7.5' Quad:** Plaster City Date: 1957 photorevised 1979 T 16S ; R 12E ; Section 18; S.B.M.
c. Address: - City: - Zip: -
d. UTM: Zone 11, 615200 mE/ 3625820 mN to 3629400 mN
e. Other Locational Data (e.g., parcel #, directions to resource, elevation, etc., as appropriate): The Westside Main Canal crosses Old Hwy 80 in a northward direction at Dixieland; it intersects the project area approximately 1300' south of Dixieland at the ROW of the San Diego and Eastern Railroad. Elevation here is about 35' above sea level

P3a. **Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The Westside Main Canal is an older canal, built in the 1920s, that was incorporated into the All American Canal System (CA-IMP-7130H), constructed between 1933 and 1938, and opened in 1940. The Westside Main begins at the western terminus of the All American Canal and extends northward in a general "Z" shape for about forty miles. It ends about 5 miles west of the town of Westmorland. As part of the All American Canal System, this canal is eligible for NRHP inclusion.

P3b. **Resource Attributes** (List attributes and codes): HP20 - Canal

P4. **Resources Present:** □Building ■Structure □Object □Site □District □Element of District □Other (Isolates, etc.)

P5a. Photograph or Drawing (Photo required for buildings, structures, and objects)

P6. **Age and Sources:**
■Historic □Prehistoric
□Both

P7. **Owner and Address:**

P8. **Recorded by** (Name, affiliation, and address):
N. Harris, HDR ,9444 Farnham, San Diego CA 92123

P9. **Date Recorded:**
June, 2000

P10. **Survey Type** (Describe):
Intensive Surface Inventory

P11. **Report Citation** (Cite survey report and other sources, or enter "none") Cultural Resources Survey for the Level (3) Communications Fiber Optic Network Between City of San Diego, California, and the California/Arizona State Line at the Colorado River, Near Yuma, Arizona; on file with the BLM, Riverside, CA.

Attachments: NONE ■Location Map □Sketch Map □Continuation Sheet □Building, Structure, and Object Record
□Archeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record
□Artifact Record □Photograph Record □Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
ARCHAEOLOGICAL SITE RECORD

Primary #: P-13-008334 UPDATE
Trinomial: CA-IMP-7834

Resource Name or #: (Assigned by recorder): Westside Main Canal

A1 **Dimensions:** a. Length: ca. 40 miles b. Width: unknown
Method of Measurement: ☐ Paced ☐Taped ☐Visual estimate■ Other: Derived from map
Method of Determination (check any that apply.): ☐ Artifacts ☐Features ☐Soil ☐Vegetation ☐Topography ☐Cut bank ☐Animal burrow ☐Excavation ☐Property boundary ■Other (Explain): Imperial Irrigation District map
Reliability of Determination. ☐High ■Medium ☐Low Explain: Measured off map
Limitations (check any that apply): ☐Restricted access ☐Paved/built over ☐Site limits incompletely defined ☐Disturbances ☐Vegetation ☐Other (Explain):

A2. Depth: ☐None ■Unknown Method of Determination:

A3. **Human Remains:** ☐Present ■Absent ☐Possible ☐Unknown (Explain):

A4 **Features** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.): Canal channel, headgates, drops, etc.

A5 **Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) None noted.

A6 **Were Specimens Collected?** ■No ☐Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

A7. **Site Condition:** ■Good ☐Fair ☐Poor (Describe disturbances.): Operational canal

A8 **Nearest Water** (Type, distance, and direction.): n/a

A9. **Elevation** ca. 35 feet above sea level

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): Agricultural properties on the east side, and creosote, ocotillo, cactus, grasses, mesquite, shrubs, forbs on the west side; soils are light brown alluvial sandy silt loams and sand dunes on the western edge of the cultivated portion of the Imperial Valley

A11. Historical Information: The Westside Main Canal is an older canal, built in the 1920s, that was incorporated into the All American Canal System (CA-IMP-7130H), constructed between 1933 and 1938, and opened in 1940. The Westside Main begins at the western terminus of the All American Canal and extends northward in a general "Z" shape for about forty miles. It ends about 5 miles west of the town of Westmorland. As part of the All American Canal System, this canal is eligible for NRHP inclusion.

A12. **Age:** ☐Prehistoric ☐Protohistoric ☐1542-1769 ☐1769-1848 ☐1848-1880 ☐1880-1914 ■1914-1945 ☐Post 1945 ☐Undetermined **(Describe position in regional prehistoric chronology or factual historic dates if known):**

A13. Interpretations (Discuss data potential, function(s), ethnic affiliation, and other interpretations): The canal is part of the historic system of canals that make up the extensive hydraulic irrigation system in the Imperial Valley. These canals profoundly influenced the Euro-American land use, settlement patterns, economy, and the cultural landscape of southern California, and continues to do so today.

A14. Remarks: None.

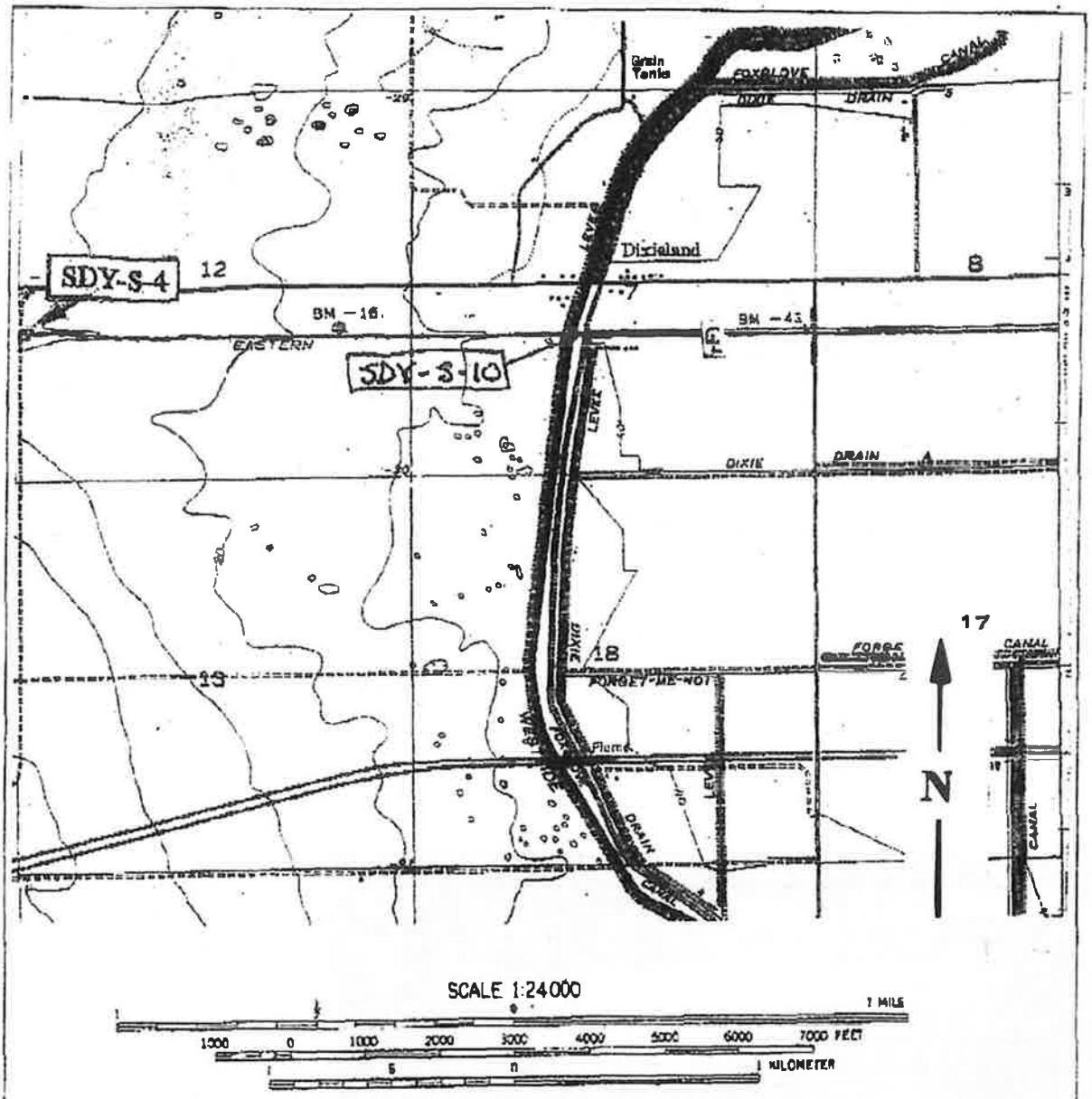
A15. References (Documents, informants, maps, and other references): None.

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record):
Kept at:

A17. Form Prepared by Michael Oberndorf Date: 12/4/2000
Affiliation and Address: HDR Engineering, Inc.
9444 Farnham Street, Suite 300
San Diego, CA 92123

[redacted]

 Resource Name or #: SDY-S-10



Plaster City, California USGS 7.5' Quadrangle

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-13-008334
HRI #:
Trinomial: CA-IMP-7834

NRHP Status Code 6
Other Listings:
Review Code____ Reviewer____ Date____

County/Route/Postmile: 11-IMP-98, P.M. 0.3-30.3/K.P 0.5-48.8 Map Reference No.: 1

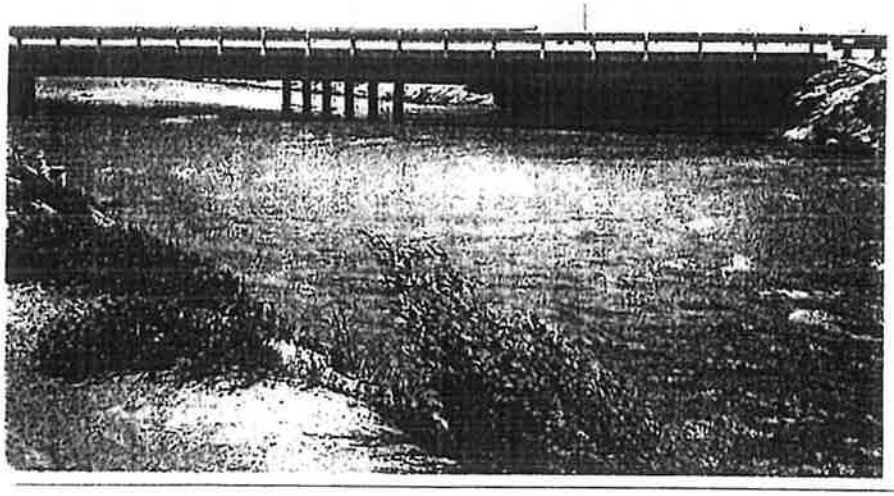
*Resource Name or #: Westside Main Canal
P1. Other Identifier: N/A
*P2. Location: *a. County Imperial
b. Address SR 98 at Postmile 22.02 City Calexico Zip 92231
*c. USGS 7.5 Quad: d. UTM:
*e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)
Segment within the APE crosses SR 98 at P.M. 22.02 (K.P. 35.23) just west of Drew Rd.

*P3a. Description:
The Westside Main Canal is a wide irrigation canal that runs through agricultural land in the Imperial Valley section of Imperial County. It enters the current project area where State Route 98 crosses the canal at Postmile 22.02 (K.P. 35.23) west of Drew Road. At this point the canal is approximately 25 feet wide (7.62 m) and about 10 feet deep (3.04 m), running perpendicular to the highway in a northwest-southeast direction. It is banked by earthen levees of natural vegetation and is unlined. Dirt access roads run along the levees on both sides of the canal to precipitate maintenance and dredging operations. The Westside Main Canal as a whole is primarily earthen lined and subject to regular dredging. Rigorous dredging has reshaped the canal's banks and inner surface.

Originating at the All-American Canal along the International Boundary, Westside Canal extends northwest roughly 11 miles (17.8 km), where it becomes the Tamarack Canal. At this point (between Brawley and Westmoreland) Westside branches off to the west, terminating at the Trifolium Canal, which continues northwest a short distance to the boundary of the Imperial Irrigation District, with laterals serving a considerable area lying south of Salton Sea. Bridge #58-274, constructed in 1955, carries SR 98 across the canal. Parallel to Westside Main is a smaller waterway, the concrete-lined Wormwood Canal. The surrounding area consists primarily of irrigated cropland.

*P3b. Resource Attributes: HP20 (Canal/Aqueduct)

P5. Photograph or Drawing (Photograph required for buildings, structures, and objects)



*P4. Resources Present:
☐ Building ■ Structure
☐Object ☐ Site ☐ District
☐ Element of District

P5b. Description of Photo:
4/28/99. Canal segment N of SR 98 looking S.

*P6. Date Constructed/Age:
c.1906; recent modifications
☐ Prehistoric ■ Historic
☐ Both

*P7. Owner and Address:
Imperial Irrigation District
333 E. Barioni Blvd.
Imperial, CA 92251

*P8. Recorded by:
Jill Hupp
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916) 654-3567

*P9. Date Recorded: 4/28/99

*P10. Type of Survey: ■Intensive
☐ Reconnaissance ☐ Other

*P11. Report Citation: IMP-98 HASR, 11-IMP-98, P.M. 0.3/30.3, EA 173400

*Attachments: ☐ NONE ☐ Map Sheet ☐ Continuation Sheet ■ Building, Structure, and Object Record
☐ Linear Resource Record ☐ Archaeological Record ☐ District Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List)

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334
HRI #/ Trinomial CA-IMP-7834

Resource Name or #: Westside Main Canal ■ Continuation ☐ Update

County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3

P5b. Description of Photo (continued)

4/28/99 Westside Main Canal segment north of SR 98, looking NW.

EEC ORIGINAL PKG

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-13-008334
HRI#/Trinomial CA-IMP-7834

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 6

*Resource Name or #: Westside Main Canal

B1. Historic Name: Westside Main Canal
B2. Common Name: Westside Main Canal
County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3
B3. Original Use: Irrigation ditch
B4. Present Use: Irrigation ditch
*B5. Architectural Style: N/A
*B6. Construction History: built c. 1906 as part of the Imperial canal system with recent modifications.
*B7. Moved? ■ No ☐ Yes ☐Unknown
Date: N/A
Original Location: N/A
*B8. Related Features: None
B9a. Architect: N/A
B9b. Builder: Calif. Devel. Co., Southern Pacific Co., I.I.D.
*B10. Significance: N/A
Theme: N/A
Area: N/A
Period of Significance: N/A
Property Type: N/A
Applicable Criteria: N/A

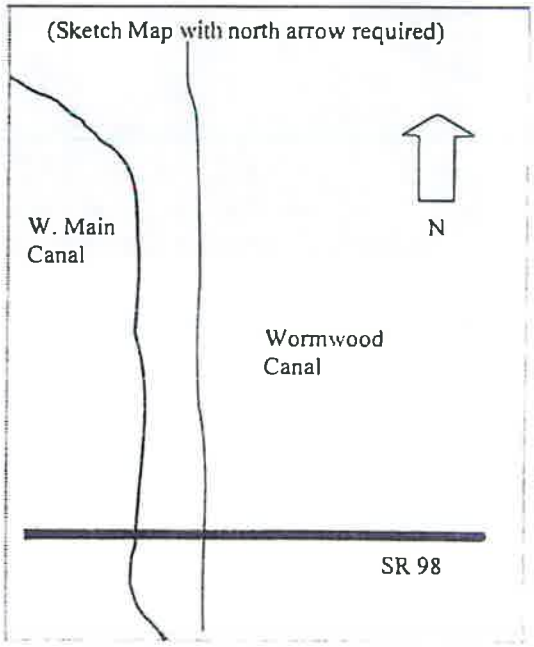
Westside Main Canal was built about 1906 as part of the expansive Imperial irrigation system, which transformed the Colorado Desert into fertile farmland. The movement to reclaim this seemingly inhospitable wasteland for agrarian purposes had originated with Dr. O. M. Wozencraft in the 1850s. Wozencraft was convinced that the area had unlimited agricultural potential, if only a potable water supply could be established; he believed that this could be accomplished by means of a single gravity-flow canal, by which several hundred acres could be irrigated. Despite Wozencraft's best efforts, no progress was made on the project during his lifetime. In 1896 a group of investors formed the California Development Company (CDC), determined to take on the challenge of desert irrigation. Headed by civil engineers Charles Rookwood and George Chaffey, the company began constructing a canal that would divert water from the Colorado River into the dry channels of the Alamo and New rivers, which would in turn carry the water north to the Colorado Desert (now the Imperial Valley). In early 1902, the first irrigation water was delivered. A CDC subsidiary, the Imperial Land Company, promoted colonization of the area and handled land sales. Under Chaffey's direction, several mutual water companies were organized as well, and the CDC built most of the distribution systems, main canals and laterals needed to service these newly developed areas. By 1905, 80 miles of main canals had been built, with more than 100,000 acres under cultivation. Water delivery service was unreliable however, the canals being poorly designed and maintained. The muddy Colorado River had a tendency to deposit heavy loads of silt, which soon blocked the canal's intake, thereby reducing the amount of water reaching Valley crops. In an attempt to combat this, the CDC cut a bypass channel in the riverbank four **(See Continuation Sheet)**

B11. Additional Resource Attributes: N/A
B12. References: Clement 1996: primary record 1; Lortie, 1997: 6, 8-10, 13-17; IID website: 1, 6; Tout 1990: 110, 114-115; Fisher 1998: 11-14.

B13. Remarks: N/A
B14. Evaluator: Jill Hupp
Caltrans Environmental Program
PO Box 942874
Sacramento, CA 94274-0001
(916) 654 3567

*Date of Evaluation: 5/24/99

(This space reserved for official comments)



State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-13-008334
HRI #/ Trinomial CA-IMP-7834

Resource Name or #: Westside Main Canal ■ Continuation □ Update

County/Route/Postmile: 11-IMP-98, P.M. 0.3/30.3

B10. Significance (continued) miles south of the border, without legal authority or adequate gates to control the force of the water. Widespread flooding in the winters of 1905-06 and 1907 as a result of this action caused extensive damage to farmland and railroad property, as well as to the canal system itself. The wooden flume that had carried the Encina (Westside Main) Canal across New River in Mexico was destroyed in the floods, as was a similar flume across New River 20 miles north of the border. It was not deemed practical to rebuild the latter, as the floodwaters had greatly increased the width and depth of the New River Channel at that locale. As an alternative, the CDC decided to enlarge Westside Main Canal (then located primarily within Mexico) and extend it north into the United States. By the end of 1907, a new enlarged wooden flume with a length of some 1,860 feet carried the canal across New River in Mexico. The extended Westside Main Canal was designed to serve all of the area lying west of New River, which had not yet been developed.

Unable to recover from its huge financial losses after the floods, the CDC was forced into bankruptcy. Southern Pacific (as the CDC's main creditor) assumed management of the company, and water delivery service continued without interruption. Between 1912-1916, development work in Imperial Valley in the way of canal extensions and territorial improvements advanced at an accelerated pace. The Imperial Irrigation District (IID) purchased the existing canal system in 1916, and in 1922 the region's smaller mutual water companies were absorbed by the District. By 1930 the district was operating some 1,700 miles of canals and laterals, with a service area of 550,000 acres. As an agricultural center, the Imperial Valley was particularly hard-hit by the Depression; maintenance and expansion work on the canals slowed to a near-standstill as economic conditions worsened. To Valley residents, the completion of Hoover Dam on the lower Colorado River in 1935 seemed an indication of better times to come. This massive Federal undertaking would help reduce the volume of silt carried by the river, and prevent the possibility of another devastating flood in the Imperial Valley. The All-American Canal was finished in 1941 as part of the same project as Hoover Dam, fulfilling the long-held ambition of Valley farmers and IID officials to build a new canal that was entirely within the boundaries of the United States. Improvements were made to the existing canal system as well, particularly the drain ditches, which were widened and fitted with drain tiles to help alleviate the problem of salt build-up in Valley soil.

Beginning in the 1960s, the IID endeavored to line all of its earthen canals with concrete. The section of Westside Main Canal within the project area is earthen, although other segments are now concrete. The canal originally lay primarily within Mexico, but was considerably widened and extended within the United States in 1907, and again between 1912-1916. More extensive improvements were made after the completion of the All-American Canal in 1941, and the sections of Westside Canal located south of the border were no longer part of the IID system. The earthen sections have been subject to regular dredging operations since the 1950s.

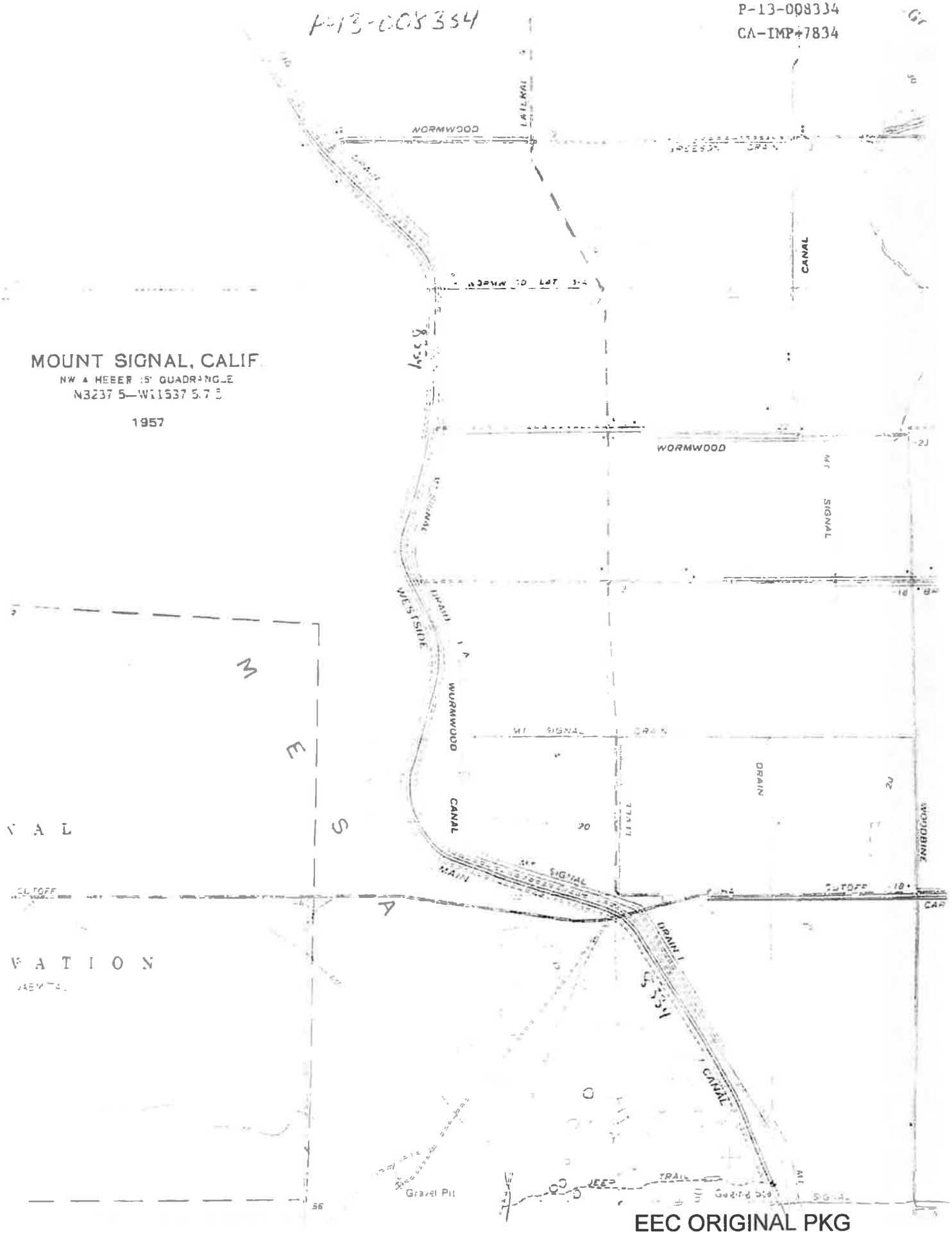
Westside Main Canal today, like the IID irrigation system overall, reflects the developments that occurred as a result of the construction of the All-American Canal in 1941, after which the system was considerably expanded and modernized. The Westside Main Canal appears to possess significance under criteria A and C for its association with the development of irrigated commercial agriculture in the Imperial Valley west of New River in the early 1900s and as a good example of an early large-scale irrigation canal system. However, research to date appears to indicate that the canal as a whole, while significant, would not possess the requisite degree of integrity due to reconstruction and dredging activities since the 1950s, but no survey of the canal in its entirety has yet been undertaken. Caltrans architectural historian Frank Lortie, after an extensive study of the IID system in 1997, concluded that the elements in the IID that retain integrity for the period 1941-1950 could be contributors to a potentially eligible National Register historic district. The segment of Westside Main Canal within the project vicinity does not appear to possess sufficient integrity of workmanship, design, feeling and association to represent the canal's significance in itself or as a contributor to a larger property. While still earthen, extensive dredging since the 1960s has changed the basic configuration of the canal, because modern dredging equipment created a different ditch profile, more U-shaped and with steeper sides. The canal was extended and widened over time as the IID attempted to keep up with its ever-expanding service area. Because of these alterations it reflects neither the period of significance outlined by Lortie (1941-1950) or the earlier period of the canal system's history (1901-1907).

In July 1997 and April 1998, segments of several canals within the IID system (including portions of Westside Main) were examined and found ineligible due to loss of integrity. The segment of Westside Main Canal within the current project area also appears to lack integrity to be individually eligible for the National Register of Historic Places or to be a contributing element of the canal as a whole, should the entire canal constitute an eligible property. There is no evidence of a possible historic district or historic landscape which might include this segment of the canal as a contributing element. Likewise, Caltrans has evaluated the canal in accordance with Section 15064.5 (a)(2)-(3) of the CEQA Guidelines, using criteria outlined in Section 5024.1 of the California Public Resources Code, and determined that the canal is not a historical resource for the purposes of CEQA.

EEC ORIGINAL PKG

P-13-008334

P-13-008334
CA-IMP-7834



EEC ORIGINAL PKG

P-13-008334
CA-IMP-7834

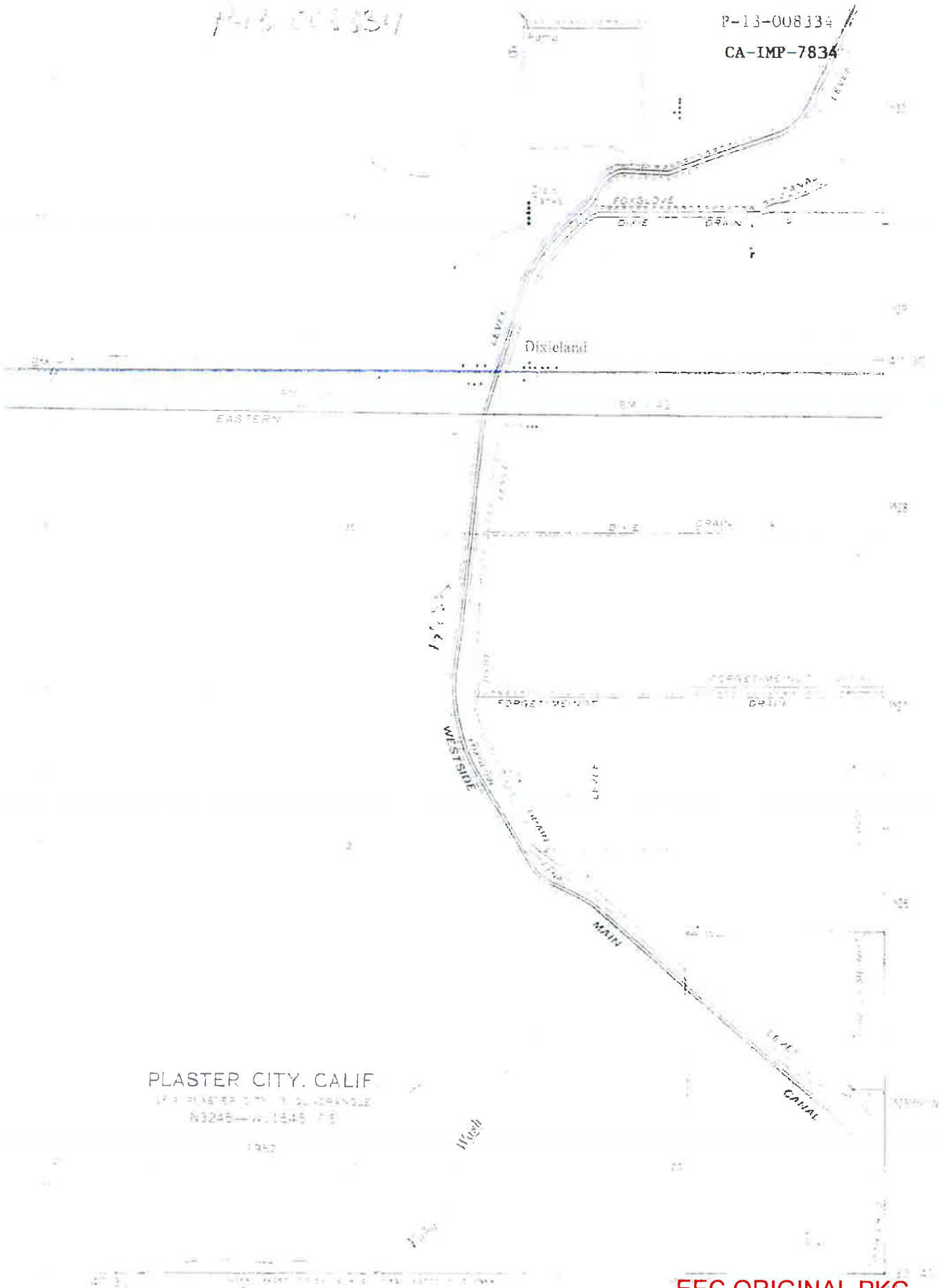
YUHA BASIN QUADRANGLE
CALIFORNIA IMPERIAL CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

WEST MESA

EEC ORIGINAL PKG

P-13-008334

CA-IMP-7834



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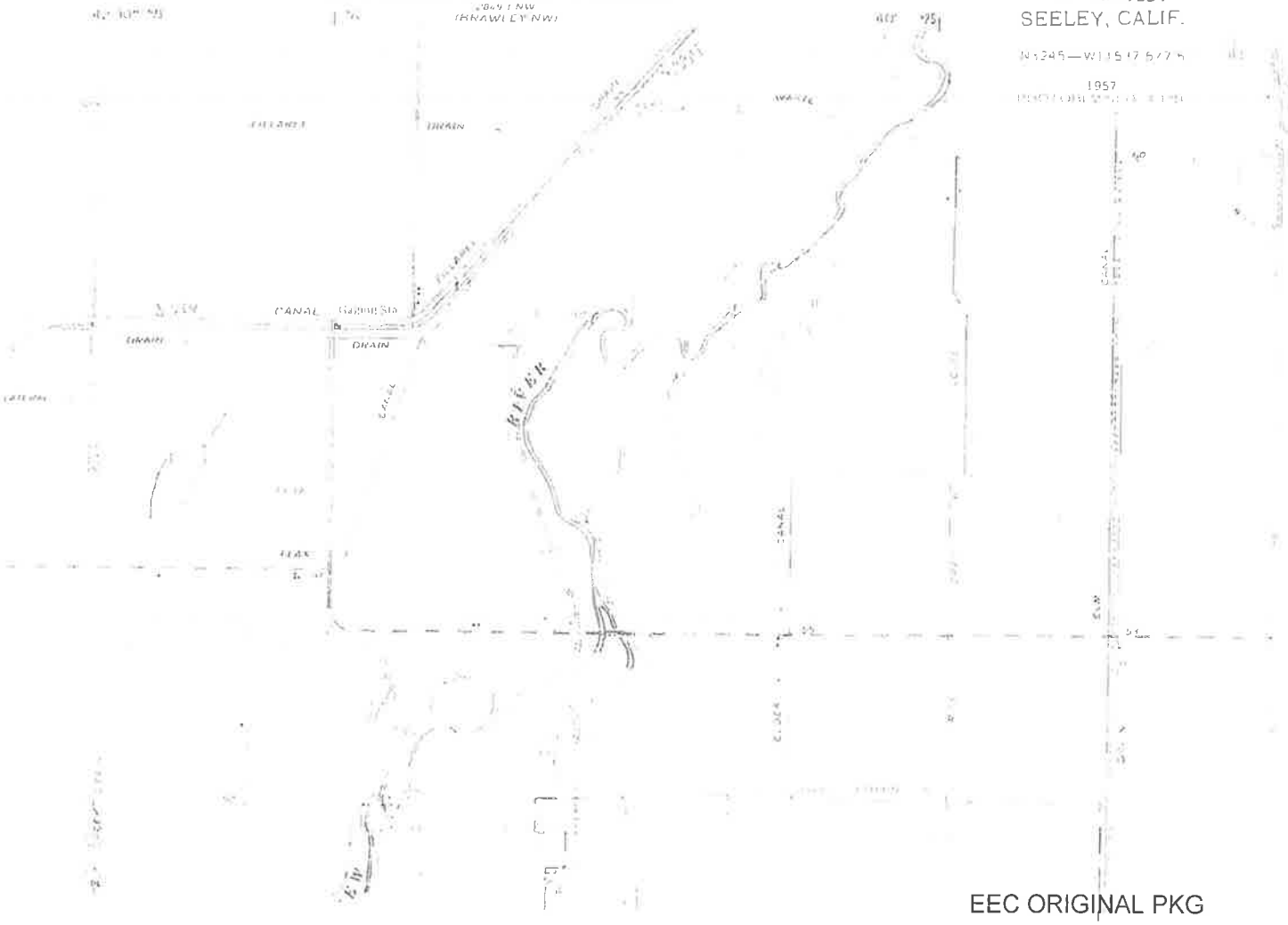
P-13-008334

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES
(BRAWLEY NW)

P-13-008334
CA-IMP-7834
SEELEY, CALIF.

N 245—W 115 47 5/7 5

1957



P-13-008334
P-13-008334
CA-IMP-7834

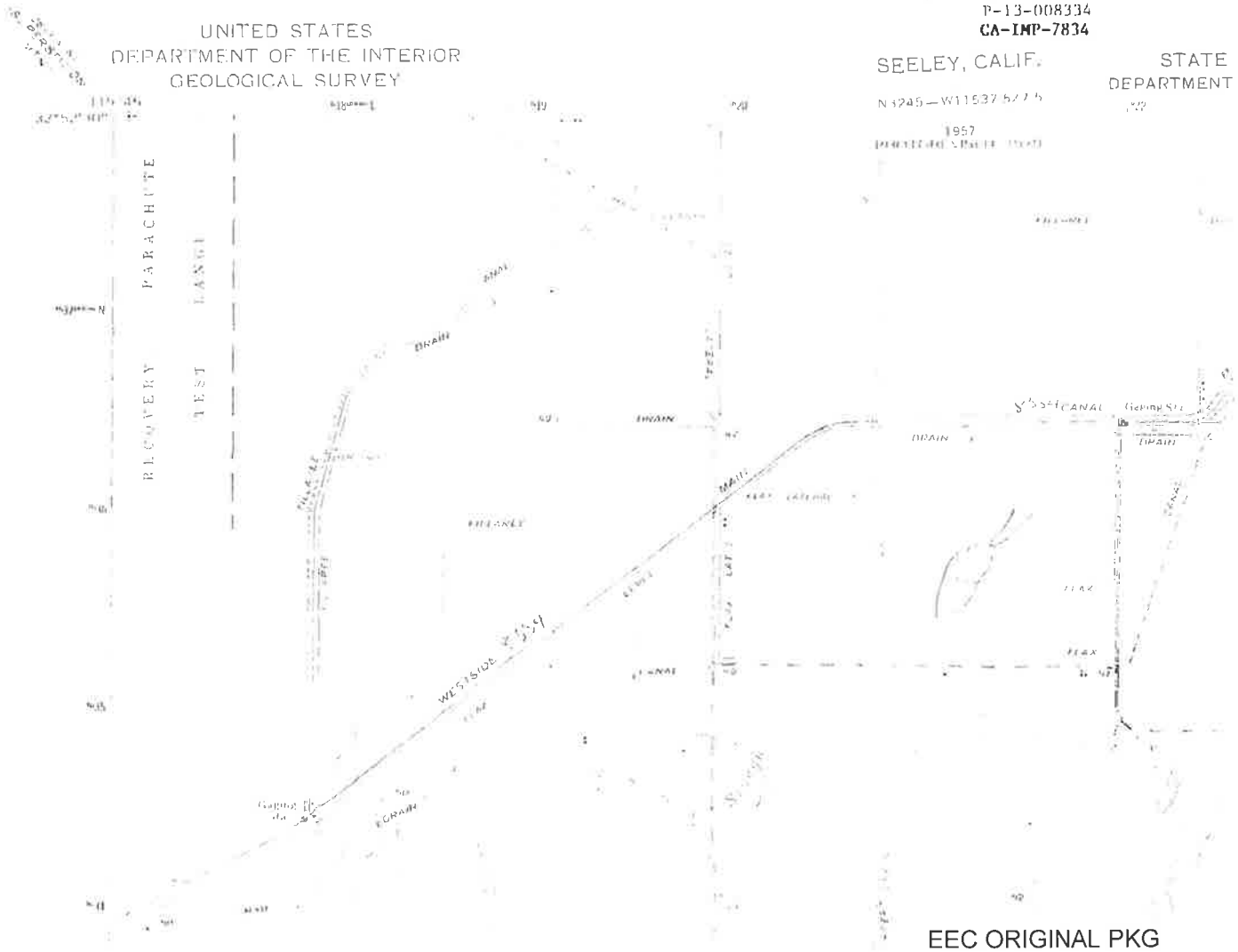
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SEELEY, CALIF.

STATE
DEPARTMENT

N3245—W11537.5/7.5

1957



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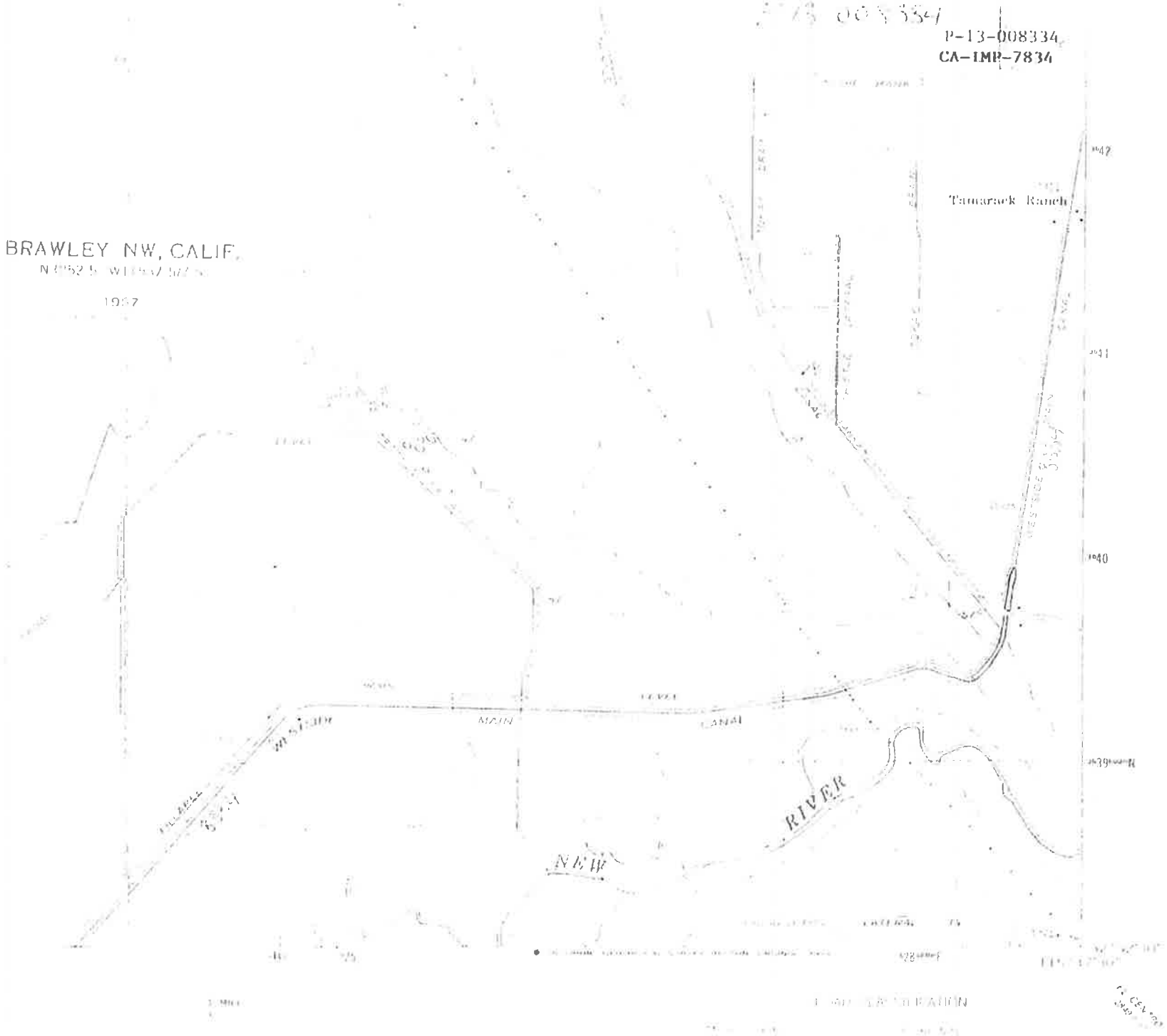

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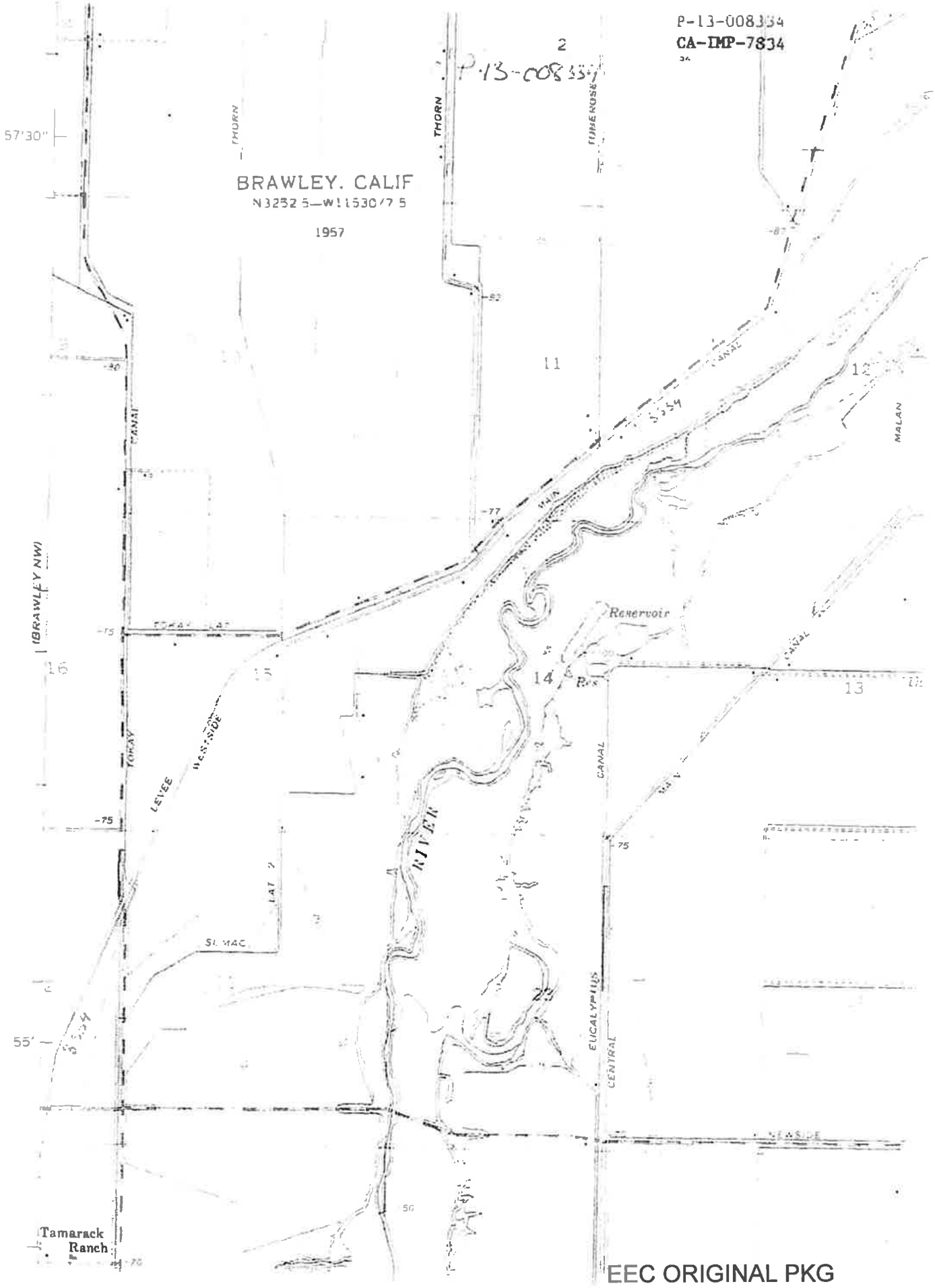

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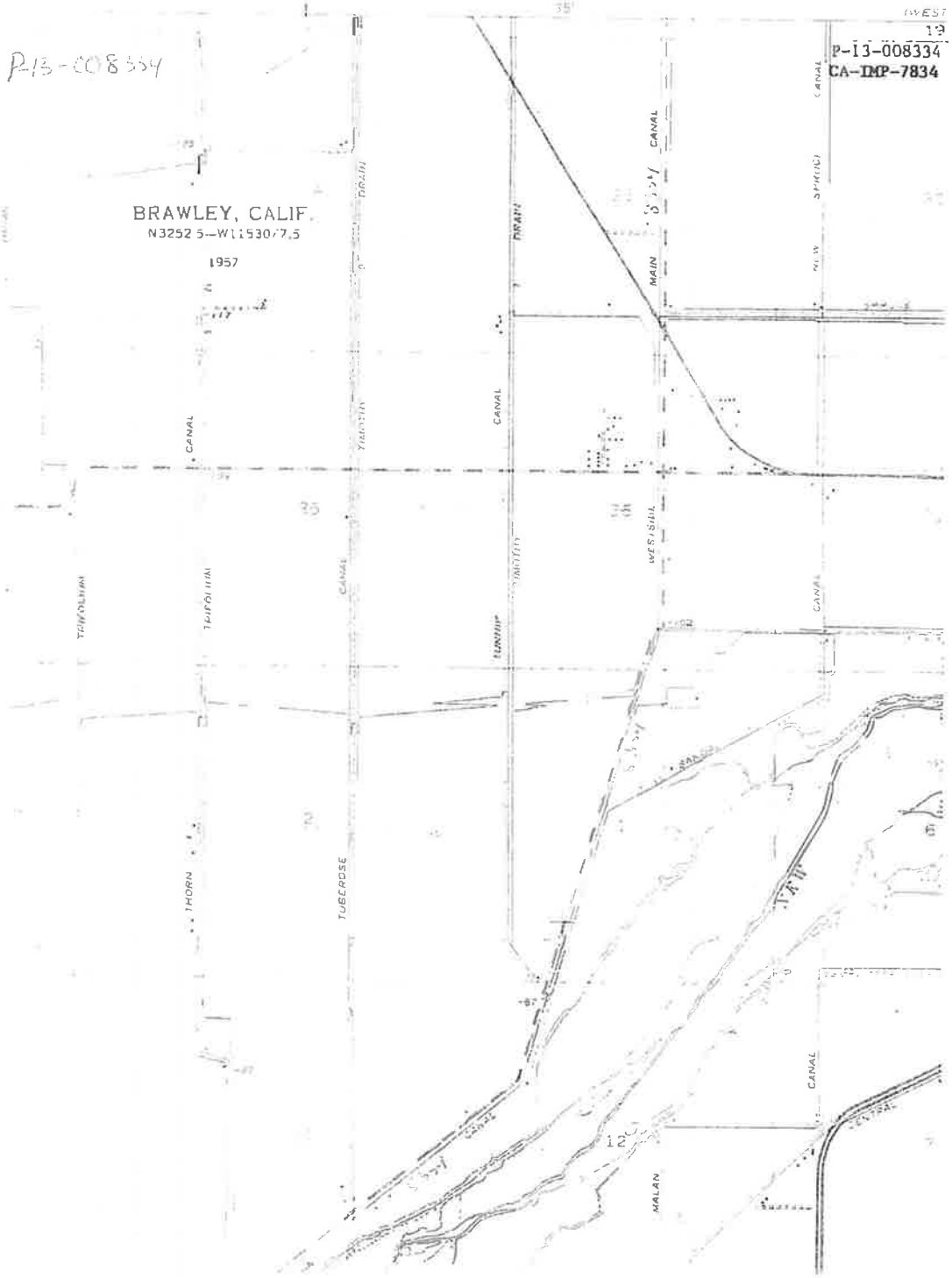

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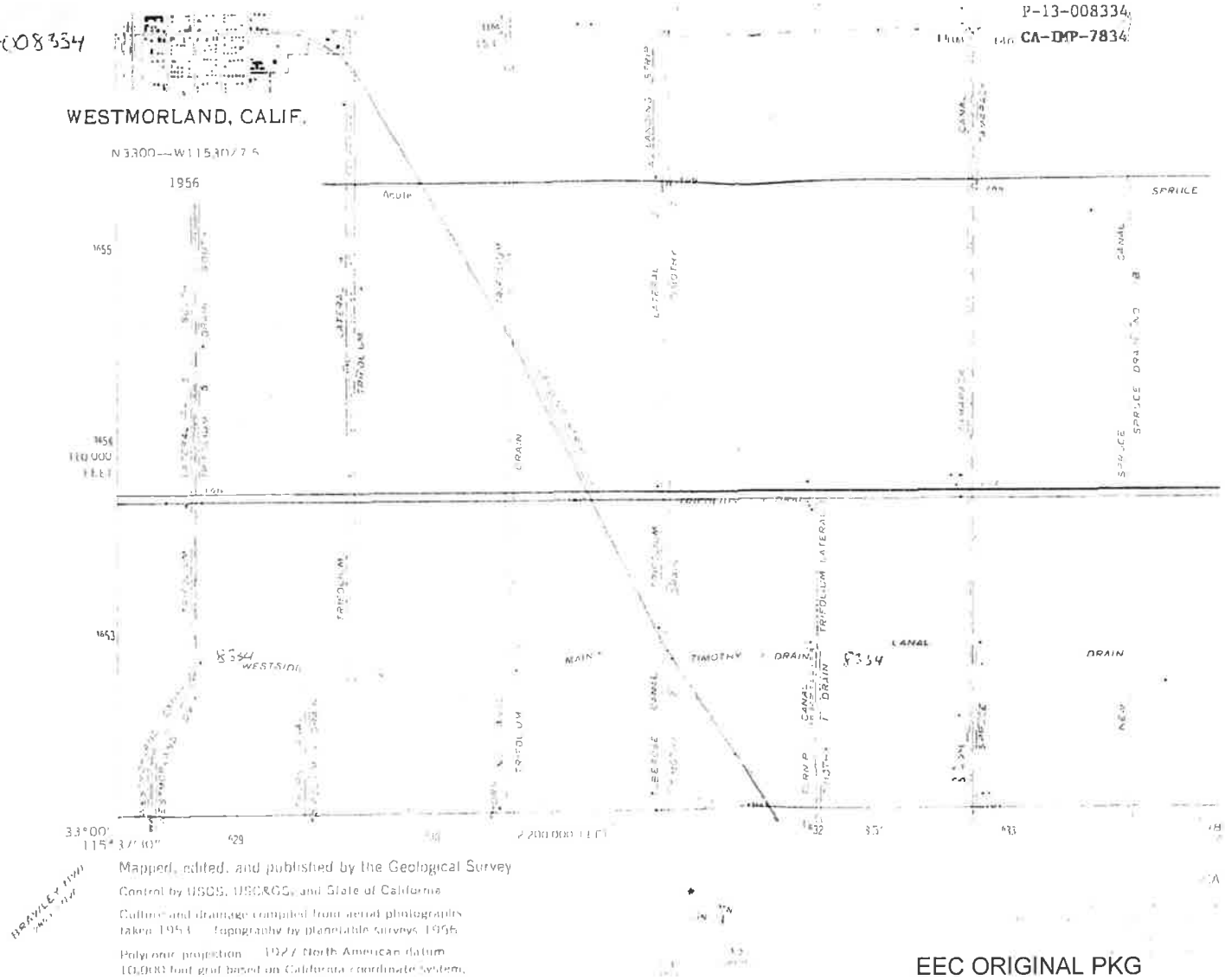

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and State of California

Culture and drainage compiled from aerial photographs taken 1954. Topography by planetable surveys 1956

Polyconic projection. 1927 North American datum

10,000 foot grid based on California coordinate system,

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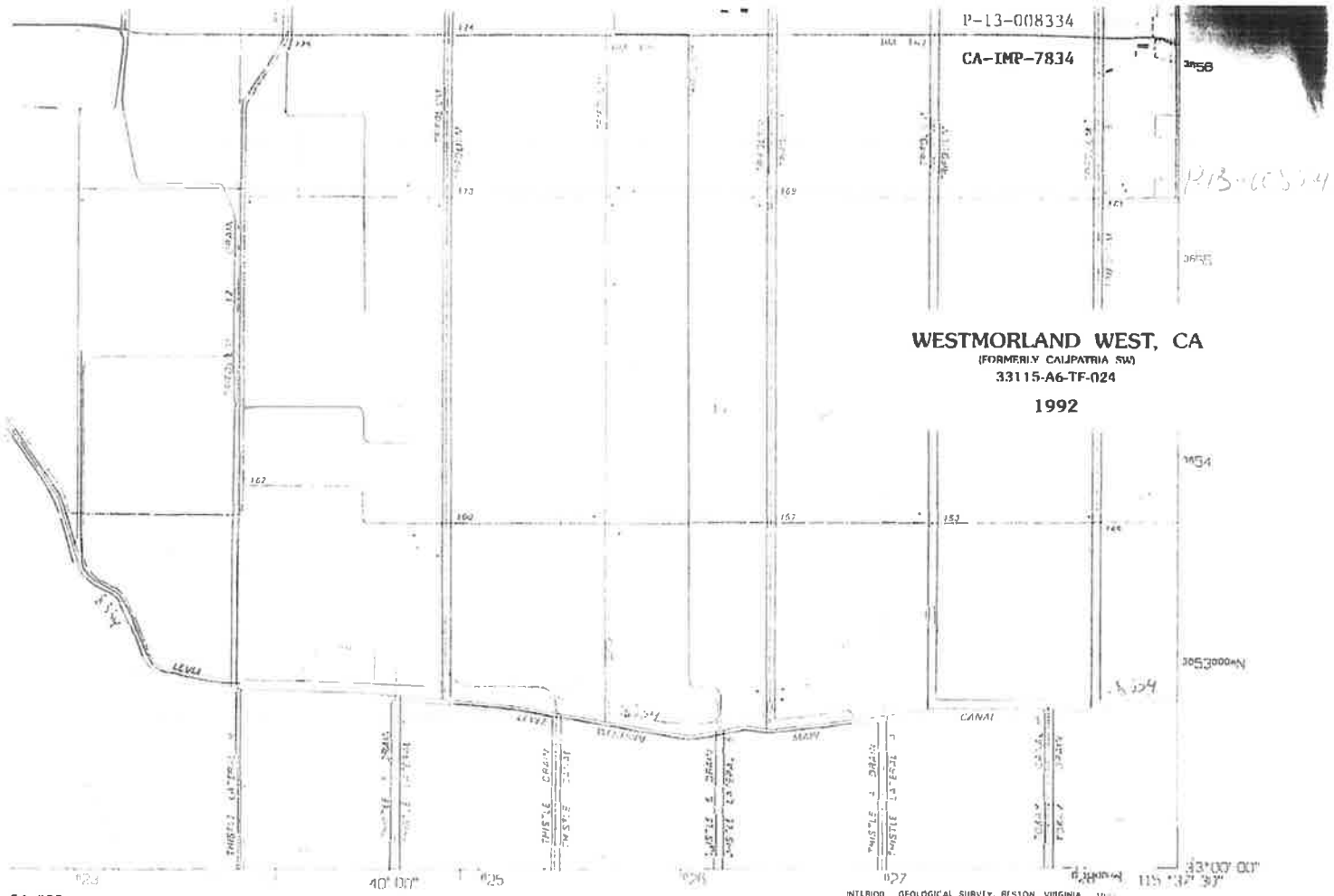


WESTMORLAND WEST, CA

(FORMERLY CALIPATRIA SW)

33115-A6-TF-024

1992

24 000

INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA

ROAD CLASSIFICATION

Primary highway hard surface

Light-duty road, hard or improved surface

Secondary highway hard surface

Unimproved road

Interstate Route

U.S. Route

QUADRANGLE LOCATION

CA

P-13-008334

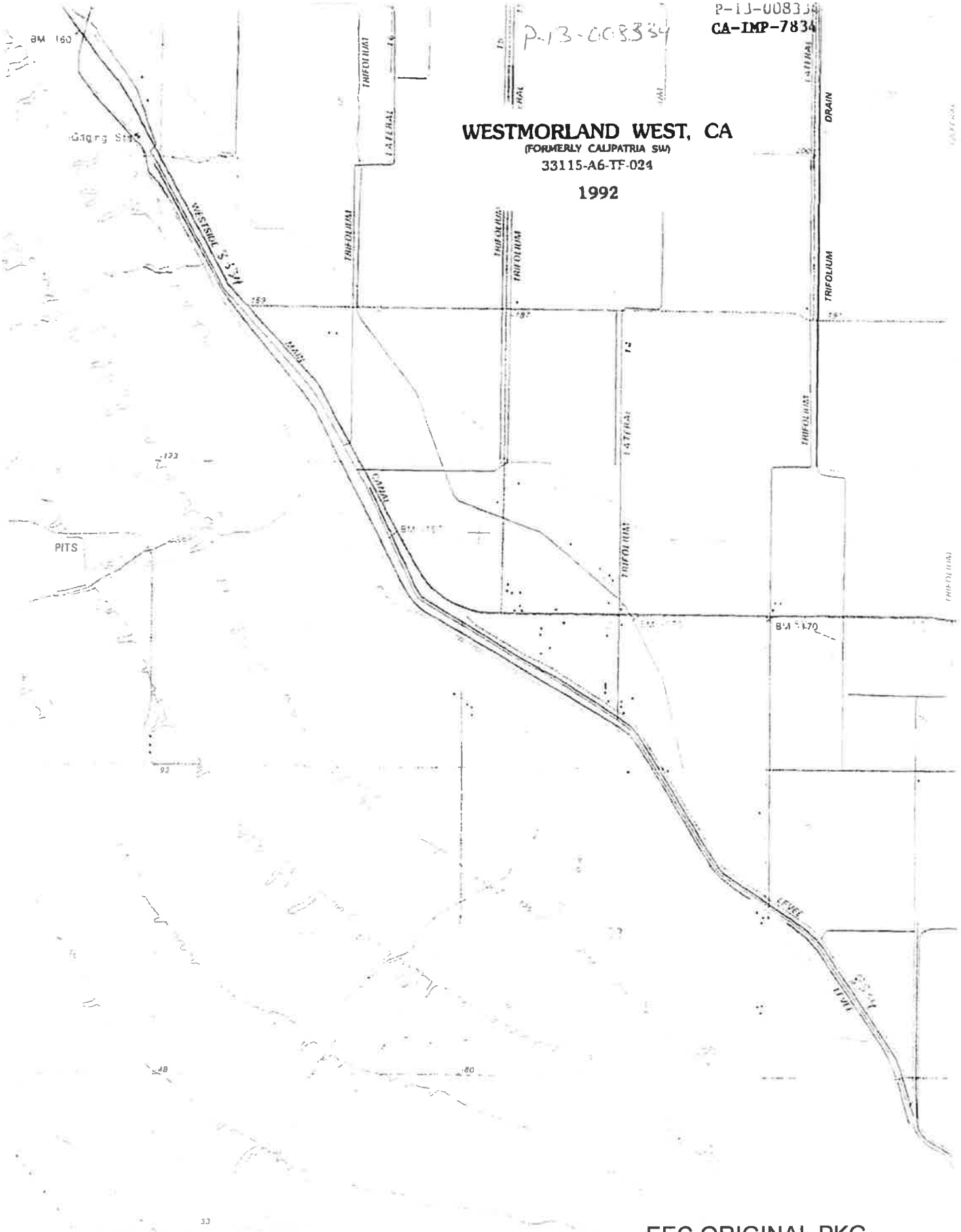
CA-IMP-7834

WESTMORLAND WEST, CA

(FORMERLY CALIPATRIA SW)

33115-A6-TF-024

1992



EEC ORIGINAL PKG

P-13-008334
CA-IMP-7834

SALTON SEA

ELEVATION 228 FEET BELOW SEA LEVEL
SEPTEMBER 1992

P-13-008334

WESTMORLAND WEST, CA
(FORMERLY CALIPATRIA SW)
33115-A6-TF-024
1992

SALTON SEA

NATIONAL WILDLIFE REFUGE

27

LEVEE

DRAIN

Spring

BM -166

EXTENSION

BM -161

BM 160

Gaging Sta

LATERAL

Ogilby, Cal., May 14, 1901

A. M. Chaffey, 244 Stowell Block, Los Angeles. --
Water turned through gate at 11 a.m. Everything
all right.

George Chaffey

The first delivery of water in the United States occurred in June, 1901, when delivery was made as far as Calexico through the Boundary Canal. Some 1500 acres was put under crops in the fall of that year.

Additional Mutual Water Companies

As already noted, Imperial Water Company No. 1 was organized in 1900. Later in the same year, Imperial Water Company No. 4 (20,000 acres) was organized, followed in 1901 by Imperial Water Companies No. 5 (100,000 acres) and No. 6 (20,000 acres), and in 1902 by No. 7 (18,000 acres) and No. 8 (45,000 acres). Tri-Party contracts were entered into by each, which in general, except for that of No. 6 Co., were similar to the one heretofore described for No. 1 Company. No. 7 Company bought its water rights from the C. D. Company for a lump sum cash payment of $50,000 and built its own distribution system; the C. D. Company built the distribution systems for the others.

No more water companies were organized until 1908. These are discussed at a later point.

Additional Construction

Canals

The Central Main Canal was continued on from the international boundary line through No. 1C ompany to its north limits (No. 4 Heading), a few miles to the southwest of the present city of Brawley, and put into service in March 1902. From this point, water service was furnished to Water Company No. 4. A branch canal from the Central Main, with a crossing by flume of what was then the relatively narrow and shallow channel of New River, was constructed to provide service to Water Company No. 8.

The Encina Canal - now West Side Main - was constructed in Lower California from Sharp's Heading to the south, crossing New River channel in a flume, then swinging to the west and north to the international boundary line at a point about ten miles west of Calexico, for providing service to Water Co. No. 6.

Diverting from the Alamo Canal about 1-½ miles upstream from Sharp's Heading, the East Side Main Canal was constructed north to the international boundary line (Allison Heading) to serve Water Co. No. 7.

For service to Water Co. No. 5, the original plan utilized the old Alamo River channel as a canal from Sharp's Heading to Holtville, where an earthern dam was constructed in the channel to raise the water high enough to make delivery. However, the dam failed within a short time, and No. 5 Company built a main canal from Allison Heading north to its lands; this became known as the Low Line or No. 5 Main Canal.

By January 1, 1905, there had been constructed eighty miles of main canals in the Imperial and Mexicali Valleys belonging to the C. D. Company and the Mexican Company and some seven hundred miles of distribution canals in Imperial Valley.

Structures

In addition to the Chaffey Gate and other structures already mentioned, major structures built during the first years included: head gates for the Central Main and Encina Canals and a waste gate to the Alamo River, all at Sharp's Heading, and the 134 Waste Gate on the Central Main Canal in Mexico about two miles downstream from Sharp's Heading, which discharged into a side channel of New River.

Holton Power Plant

From a point on the No. 5 Main Canal southeast of Holtville known as No. 5 Heading, W. F. Holt, developer of No. 7 Water Company, the town of Holtville, and other enterprises, built a canal to the Alamo River where he installed a small hydroelectric plant in 1903-04 with a head of about 20 feet. This was the start of the Holton Power Company and supplied the first electric service to Holtville and El Centro. Water for the plant was secured from the C. D. Company by a special contract and when available up to 150 second-feet was used for power purposes. The deepening of the Alamo River by flood waters from the river break of 1905-07 increased the available head at the plant about 25 feet, and a second hydro plant was built to utilize the increased head. The two plants had a capacity of about 1500 kilowatts.

Concession from Mexican Government

From the discussion which has been given of the Mexican Company relating to the various contracts in which it became involved, as well as its intended purpose of selling or leasing water to serve lands in Mexico in addition to those it owned, it can be seen that the Company was, in fact, a public utility; but the right to operate as such had not been granted by the Mexican Government. Moreover, as will be referred to at a later point, questions arose as to the right of the C. D. Company to appropriate water from the Colorado River under California State law, since the River was considered navigable and such right had not been recognized by the United States Government; hence it appeared desirable to the C. D. Company to secure the right, if possible, to divert water from the River in Mexico.

These were among the reasons why the C. D. Company, through its subsidiary, the Mexican Company, sought a concession from the Mexican Government to legalize all of the activities of the latter Company.

Such a concession, or contract, was obtained under date of May 17, 1904, being approved by action of the Mexican Congress and the President under date of June 7, 1904.

The concession authorized the Mexican Company to carry through its canal system in Mexico, 284 cubic meters per second (10,000 second-feet) of water to be diverted from the Colorado River in the United States by the C. D. Company and turned over to the Mexican Company at the international boundary line. It also authorized the Mexican Company to divert from the Colorado River in Mexico, 284 cubic meters per second (10,000 second-feet) of water to be carried through its canal system, provided that such diversion did not injure the

completed in March of that year.

Complications With Work in Mexico

One of the complicating factors in connection with all work carried on in Mexico was that neither the C. D. Company nor the Southern Pacific Company, as such, could do any work in Mexico under their own names. At a later date, the U. S. Federal Government ran into a similar complication when it undertook to construct river levees in Mexico. It was therefore necessary that the work in connection with the canal system and the closing of the break be carried on in the name of La Sociedad de Yrrigation y Terrenos de la Baja California, S. A., the Mexican Company, with funds advanced by the C. D. Company or the Southern Pacific Company.

Damages from the Break

Erosion of New and Alamo Rivers

During the break, the large flow of water through the Alamo Canal caused an overflow for many miles and created a very serious situation. The larger part of the water overflowed the south bank and collected in New River channel in Lower California and thence passed down the west side of Imperial Valley to Salton Sea. At the closure of the Break, New River, which had been a rather shallow channel, had become a gorge 40 to 60 feet deep through Imperial Valley and extending for some six or eight miles into Lower California.

It was possible, through the use of the Alamo Wasteway at Sharp's Heading, to control the flow at that point during the River break, so that most of the area in the Valley east of New River received a continuous water supply. However, the large amounts of water which, to maintain control at Sharp's Heading, had to be wasted through the Alamo Wasteway to the Alamo River and thence to Salton Sea widened the River and deepened it as much as 20 to 30 feet in some places; but the resulting channel was small compared to that of New River.

It is estimated that some 13,000 acres of irrigable land, part of which was in crop, was destroyed by the erosion of the Alamo and New Rivers.

Salton Sea

Salton Sea, which had been practically dry, reached an elevation of approximately 195 feet below sea level by the time the break was closed in February, 1907. The surface area of the Sea at that time was about 500 square miles, (285,000 acres) with a length of 50 miles and a width of some 10 to 15 miles.

Flumes Over New River

In addition to the damage caused to the Alamo Canal, the water from the break destroyed the wooden flume which carried the Encina (West Side Main) Canal across New River in Mexico, and a similar flume across New River some 20 miles to the north of the international boundary line which supplied No. 8 Water Company.

Inasmuch as it was not practical to rebuild the No. 8 flume because of the greatly increased width and depth of the New River channel in that locality created by the flood, it was decided to enlarge the West Side Main Canal in Mexico and

same vicinity, to the west into Imperial Valley, was imminent at the time. As a matter of fact, such a natural diversion did occur in 1908-09 about twenty miles downstream at a point in the River about opposite the lower (Arizona - Mexico) international boundary line. The end had come to the peaceful meandering of the River along the east side of its delta in Mexico, which had existed over the previous five hundred years. While the 1905 break was a bitter and costly experience, still the knowledge gained from it and the realization of the need for a levee system, perhaps saved Imperial Valley from a far worse disaster at a later time through the River diverting itself into the Valley.

Permanent Hanlon Heading

Original Structure

The loan of $200,000 made to the C. D. Company by the Southern Pacific Company in the early part of 1905 was primarily for the construction of permanent head works to replace the wooden Chaffey Gate and to construct the Alamo waste gate at Sharp's Heading. Work on the new head gate, known as Hanlon Heading, was started in December 1905 and completed in June 1906. The new structure was constructed on solid rock where a spur of Pilot Knob Mountain extended out near the River channel, the location of the structure being somewhat to the north and a short distance to the west of the Old Chaffey Gate. A new intake canal was excavated from the River to the new structure. Hanlon Heading had 11 gate openings each 12 feet wide and 10 feet high, the flow through them being controlled by radial gates. The designed capacity was 10,000 cubic feet per second at low-flow stages of the River, with the sill of the gate placed at a much lower elevation than that of the Chaffey Gate. There was also a "navigation pass" 10 feet 3 inches wide at the east end of the structure for the purpose of passing small power boats through the structure.

Addition to Hanlon Heading

In 1913, a "Stoney" gate was added to the west side of Hanlon Heading, occupying three of the original gate openings. This gate has a single opening of 25 feet by 14 feet, with the sill 5 feet lower than that of the main structure and was completed in May of that year. The purpose was to improve diversion conditions during low-flow periods of the River.

Repairs and Improvements to Canal System

Following the closure of the break, in addition to the rebuilding of the Encina (West Side Main) flume over New River and extension of that canal in the United States, other work was undertaken.

The banks of the Alamo Canal were repaired and strengthened and the work of straightening and confining the channel was commenced.

At a point on the Alamo River west of Holtville, a large concrete drop structure - known as Rositas Wasteway - was constructed to raise the water in the River for service to the Mesquite Lake area through the Rose Canal, for which a concrete head gate was also installed. In this way, reuse was made of the water discharged from the Holton Power Plant, as well as that which was passed through the Alamo Wasteway at Sharp's Heading in Mexico.

The Rositas Wasteway was designed for a capacity of 2,000 second-feet. The

The appropriation was used to extend the existing levee - C. D. Levee - along the River for a distance of about twenty-five miles in Mexico, which carried it across and for several miles below the break of the old channel into Bee River, the new levee being named Ockerson Levee. The work was completed in May 1911, but floods a short time later breached the new levee at the Bee River break and at many other points. The result was an almost total loss of the work, and the River was again flowing through Bee River into the Volcano Lake area.

United States Government Withdraws

In 1912, a part of the unexpected funds remaining from the 1910 appropriation was used in repairing numerous breaks in the upstream section of the Ockerson Levee, and again the work had to be carried on in the name of the Colorado River Land Company. In 1913, the remainder of the 1910 appropriation was used in repairing a break in the C. D. Levee a few miles below the international boundary line in Mexico, to which cost $30,000 was contributed by Imperial Irrigation District.

By the start of 1915, the general situation as to flood control was chaotic. The C. D. Company and the Mexican Company were bankrupt and in the hands of Receivers with insufficient funds available, and Imperial Irrigation District was not yet in position to take over because of legal complications. In view of these conditions, a further appeal was made to the Congress for assistance, and the sum of $100,000 was appropriated in March of that year, with the provision that Imperial Irrigation District contribute a like amount, which it did. These funds were expended in raising, strengthening, and extending the Volcano Lake Levee about four miles, and in rock revetting the parts of the C. D. Levee then under attack by the River. This was the last expenditure of funds by the United States Government on flood-protection work for Imperial Valley; the people of the Valley were left to their own fate, being faced with a flood menace far more critical than had existed up to that time.

Additions and Betterments to the Canal System

Receiver's Certificates

When the Receiver for the C. D. Company took over in December 1909, he found there were no funds available with which to operate. To secure the necessary funds, he obtained an order from the Court to issue Receiver's Certificates, and to April 1918, $315,000 of such Certificates were sold at par to the Southern Pacific Company. This money, together with subsequent collections for water delivered to the mutual water companies, financed the operations of the Receiver.

Major Structures

Mention has already been made of the Stoney gate attached to Hanlon Heading, which was installed during the receivership. Other important canal structures built during this period included Cudahy Check, Laurence Heading (this was on the Alamo Canal in Mexico at the point of diversion for the new East Highline Canal), and a new head gate for the West Side Main (Encina) Canal at Sharp's Heading.

Due to a washout of the West Side Main Canal at the upstream end of the

a field survey of an All-American Canal.

Cierro Prieto Canal

One of the first improvements undertaken by the District was the construction of the Cierro Prieto Canal diverting from Volcano Lake through a head gate constructed in the Volcano Lake Levee near its lower end at Black Butte. The canal was built to the northwest and then north, a total distance of some sixteen miles, keeping to the south of New River, to a junction with the West Side Main Canal near Wistaria Check.

There were several reasons for building this canal. By diverting water from Volcano Lake, the demand on the Alamo Canal would be reduced. Also, because much of the silt in the River was being deposited in the Volcano Lake region, the silt content of the water diverted would be materially reduced, which would result in a saving to both the District and the landowners in the cost of water service. Moreover, the entire west side of the Valley was dependent upon the flume which carried the West Side Main over New River, and any accident to the flume, such as had occurred in the past, might cause not only great inconvenience to the water users, but severe damage to their crops. The Cierro Prieto Canal would furnish another source of supply, independent of the flume, for the west side of the Valley.

The canal was completed in August 1916 at an initial cost, including the head gate, of about $300,000. Tule Check, on the Cierro Prieto Canal was constructed in the spring of 1917, and the canal enlarged to a capacity of 1,200 second-feet, at a cost of about $125,000.

The water surface of Volcano Lake varied with the amount of flow in the River, and during the periods of lowest flow it was not possible to divert to the Cierro Prieto Canal. For this reason, diversion was made from the Lake to the canal for about twenty days in August, 1916 and intermittently thereafter until September, 1921. The diversion of the River through the Pescadero Cut and out of the Volcano Lake region, made by the District in 1922, dried up the Lake, making further diversion into the canal impossible. After 1917, the canal was served primarily by the Solfatara Canal, discussed at a later point.

Board of Consulting Engineers

In view of conditions on the River and the very serious problem of maintaining an adequate water supply, the District Board of Directors, by resolution of September 26, 1916, appointed a Board of Consulting Engineers to make an investigation and recommend what should be done to cope with the critical situation. The Board consisted of G. C. Anderson and C. E. Grunsky, both of whom were well known for their ability and long experience in connection with Colorado River irrigation matters.

Report No. 1

The Consulting Board issued its Report No. 1 under date of October 25, 1916. This was of a preliminary nature and contained eight recommendations to be carried out immediately. These included a new head gate and intake canal at Andrade, with the use of large suction dredgers for handling heavy silt in the intake canal; improvements to the Alamo canal; and an upstream extension of the Cierro Prieto Canal to a connection with the Alamo Canal.

ed from a point about two miles below its Volcano Lake heading, to the north a distance of sixteen miles to the Alamo Canal at Cudahy Check, the extension being known as the Solfatara Canal. As has been pointed out, diversions to the Cierro Prieto Canal from Volcano Lake could be made only during the higher stages of the flow of the River. So the first purpose of the new canal was to assure a constant supply to the Cierro Prieto, and thus to the west side of Imperial Valley. The upper end of the new canal was located adjacent to and on the westerly side of the Volcano Lake Levee. Excavation from this section was used to raise and strengthen the Volcano Lake Levee. The lower portion of the canal veered away from the Volcano Lake Levee and crossed extensive alkali flats. The area between the canal and the levee was silted in, which not only provided good material for raising the levee, but also gave it backing and increased its stability.

Cudahy Check had been constructed in 1914 with funds provided by the Imperial Development Company, which owned a large tract of land in the vicinity, the check being used for diversion of water for the development of that tract. When the Solfatara Canal was constructed, its heading was located on the Alamo Canal immediately upstream from Cudahy Check, and the District reimbursed the Imperial Development Company in the sum of $43,000 on the cost of the check.

The canal was completed in 1917 at a cost of $171,000.

4. Improvements to the Alamo Canal

Considerable work was done on the Alamo Canal, including the cutting off of bends to improve alignment, widening of certain sections to increase capacity, and channelizing of a number of sections to prevent excessive deposition of heavy silt. On this work, a total of $625,000 was expended.

5. Improvements to Levee System

In accordance with the Consulting Board's recommendation, $500,000 was expended on the protective levee system, principally in extending, raising and revetting the Saiz and Volcano Lake Levees. Conditions which required this work will be discussed at a later point, under the heading of "Pescadero Cut".

6. Other Items of Construction

Among other major items constructed in accordance with the recommendations of the Consulting Board was the replacement of the Alamo Waste Gate at Sharp's Heading. This was a large wooden structure and was the main control not only for the several canals diverting from the Alamo Canal at Sharp's Heading, but also for the regulation of the entire Alamo Canal. It diverted surplus water to the Alamo River and was used in sluicing the lower end of the Alamo Canal. It was originally constructed in 1903, and although the Consulting Board had recommended that it be replaced with a concrete structure, this was not done, the replacement being a similar type of wooden structure costing $86,500.

Also, a concrete wasteway structure was installed on the east side of the West Side Main Canal at Wistaria Heading in Mexico, discharging into a channel leading into New River. The cost of the structure was $45,000.

In addition, there were a number of miscellaneous structures built, such as canal headings, small sluiceways and wasteways, both in Mexico and in the Imperial Valley, which completed the expenditure of funds from the second bond issue.

Construction of Deep Drains

The major portion of the work was carried on with the $2,500,000 made available from the fourth bond issue, and by 1929, when these funds were exhausted, there had been completed a total of 190 miles of deep drain outlets. In addition, General Fund monies had been used in the construction of 44 miles of such drains, making the total 234 miles at the end of 1929.

Soils of Imperial Valley

These main drains were but a start toward solving the drainage problem of Imperial Valley. While such a system of deep drains had to be provided in any event, yet it was found that in most instances their effect did not extend to a very great distance laterally, for reasons which will be explained.

The soils of the delta portion of Imperial Valley - the area then developed are made up of alluvial deposits of fine textured clays, silts, and sands laid down by the Colorado River, the thickness and type of a stratum at any particular location having been determined by the course of the River and the type of silt it was carrying when the deposit occurred. The result is a very greatly stratified soil, made up of lenses or pockets of varying size and type of material, and this condition tends to retard natural drainage. There are no gravel and sand water-bearing strata and hence no "general" underground water table such as is found under many western irrigation projects. In most parts of the Valley, the water table is perched on underlying relatively impervious strata, so that drainage by deep-well pumping, successfully used in many projects, is ruled out.

These conditions made the problem of adequate drainage of the lands in the delta portion of Imperial Valley one of the most difficult of solution of any to be found in the West. Drainage methods which have been successful in areas of homogenous soils are not adapted to the stratified, alluvial and lacustrine soils of Imperial Valley.

Expansion of Drainage System

It became apparent that the answer to the problem was a drainage system that would meet the varying soil conditions on the individual farms. To this end, the District began an expansion of its drainage system, as rapidly as funds would permit, to reach each 160 acres of land throughout the Valley. Such would then provide an outlet for whatever additional drainage facilities as might be required on the individual farm to give it adequate drainage.

The program required the development of a lateral drain system by the deepening of existing surface drains to a depth of 6 or 8 feet and the construction of additional deep drains to serve as outlets. Also as a part of the program, the District adopted a policy of cooperating with the individual landowner in the making of a detailed survey and examination of his land, from which facilities to provide adequate drainage could be designed, and, if the landowner proceeded with the installation, furnishing all the engineering work required, all without expense to the landowner, but the latter was required to pay all other costs of the installation. As further assistance in getting the work underway, the District purchased two tile-laying machines, the use of which it furnished to the landowner at cost.

1929, which provided that the Imperial District would construct all of the works, with the Niland District paying for the excavation and Imperial standing the cost of the necessary structures. Work performed by Imperial in 1929 under this contract included the extension of the East Highline Canal for 2½ miles and the construction of five laterals extending westerly to Salton Sea, totalling 32 miles in length, together with parallel surface drains from the Southern Pacific Railroad to the Sea. In subsequent years, Imperial continued construction until the proposed work was completed.

Miscellaneous Canal System Improvements

The Thistle Canal on the west side of the Valley west of Brawley was enlarged and its laterals extended to make possible the development of several thousand acres of new land. Also, the Trifolium (West Side Main) Canal was extended for several miles to the western boundary of the District, with laterals to the north to serve a considerable area lying south of Salton Sea.

In addition to funds provided by bond issues for work on realigning and controlling the Alamo Canal in Mexico, the District expended a considerable amount from General Funds for this purpose.

Commencing about six miles downstream from Cudahy Check, a section of the Alamo Canal some three or four miles in length, known as Alamo Mocho, gave particular trouble. Bed silt depositing in this section caused a continuous rise of the bottom of the Canal and hence of the water surface, requiring raising of the canal banks. This rise in water surface averaged between one-half and one foot per year.

It was also noted that, year by year, the bed silt was gradually moving farther into the main canals and laterals in the Imperial Valley, necessitating more dredging and, hence, increasing the cost of maintenance to the District. Sluicing of the canals into the Alamo and New Rivers was of benefit in removing bed silt, but still large amounts of this type and most of the suspended silt were carried through to the farms, causing added expense to the water users too.

Silt Problem

As an illustration of the seriousness of the silt problem to the Imperial Valley, conditions in the year 1923 are cited.

From tests made during that year, it was determined that about 25,000 acre-feet of silt passed through Rockwood Heading into the Alamo Canal; this equals 40,000,000 cubic yards but did not include all of the bedload or sand which was carried along the bottom of the canal and out of reach of the silt-sampling apparatus. Of this total quantity of silt, it was estimated, in round figures that 1,000,000 cubic yards was removed from the intake canal by suction dredging; 3,000,000 cubic yards was excavated in cleaning, by various methods, the remainder of the canal system; 10,500 cubic yards were disposed of by sluicing the canals and laterals; and deliveries of water to lands in Mexico carried 5,500,000 cubic yards onto those lands. The total of the foregoing amounts is 20,000,00 cubic yards, or one-half of the total of 40,000,000 cubic yards. This means that the other half, or at least 20,000,000 cubic yards of silt, was carried onto the irrigated lands in Imperial Valley.

Other Events to 1940

Improved Situation

With the Plan of Composition becoming effective, the District's financial position very greatly improved. However, it had been a most difficult decade through which the District and its people had had to operate; but on the bright side, several events had taken place which offered much encouragement.

During the period prior to storage in Lake Mead in 1935, there had been no large river floods; hence expenditures required for flood protection were at a minimum. The silt content of the water, which had been excessive for several years prior to 1931, greatly increasing the cost of canal maintenance, had returned to normal, which assisted in carrying out the retrenchment program.

As had been anticipated, this very severe retrenchment program in the early thirties resulted in a deterioration of the canal and drainage systems, but toward the latter part of the period it was possible to catch up on a considerable part of the delayed work. Also, with the monies made available to the Drainage Fund under the Plan of Composition, drainage construction was going forward at a much increased pace. Moreover, after 1932 the District issued no more registered warrants and had maintained its cash position for current expenditures.

Commencing on February 1, 1935, storage of water in Lake Mead behind Hoover Dam had begun, which removed the major flood danger and assured an ample water supply for the Valley. Construction of the All-American Canal had started in 1934, the head works had been dedicated in 1938, and service to the Valley was to be commenced in a short time. The Canal not only would eliminate the international difficulties and diversion problems which had previously existed, but, together with Hoover Dam, would in time largely eliminate the silt problem. In May, 1936, the District's power system had gone into operation and was rapidly being expanded to cover the entire Valley. Revenue from power sales was increasing rapidly, and an additional source of power would soon be available from plants then under construction by the District on the All-American Canal. Lastly, to all of the foregoing should be added the effect from the rapidly improving market for agricultural products, both as to prices and demand, which had developed in the latter part of the period.

1939 Storm

But mention should be made of two serious events which the District had to meet, one of which occurred in 1939 and the other in 1940.

In September, 1939, a storm resulting from a hurricane off the west coast of Mexico swept up through the trough of the Colorado River Valley, and during one week in which rain fell in Imperial Valley almost continuously, there was nearly 7 inches of precipitation - not only the maximum amount for any one storm but more than the total amount for any one year, in the history of the Valley.

Great damage was done to both the canal and drainage systems. The West Side Main Canal and the north end of the East Highline Canal were broken in many places and canal banks were seriously damaged over a length of many miles.

A large number of lateral headings and drop and delivery structures were destroyed, as well as a number of miles of lateral canal banks. Several major drainage structures were washed out, and other serious damage to the drainage system occurred at many points.

The cost of repairing the damage to the canal and drainage systems amounted to about $110,000. A part of this cost was met with funds from the newly created Emergency Fund provided for by the 1939 Plan of Composition and the balance from the General Fund.

1940 Earthquake

The second disastrous event was the earthquake of May 18, 1940 - the most severe since the development of the Valley commenced. It was caused by a movement of the San Jacinto fault, which passes through the Valley, from the northwest to the southeast, a few miles to the west of Brawley and several miles to the east of El Centro and Calexico. The epicenter was located approximately on the international boundary line, and it was possible to trace the fault for a distance of some forty to fifty miles, commencing in Mexico near Volcano Lake and extending through Lower California and on through Imperial Valley to north of Brawley. The maximum slippage was over 14 feet near the international boundary line.

The principal damage occurred to the canal system in Mexico. For several miles below Tortuoso Drop the Solfatara Canal was completely destroyed. The large flume carrying the West Side Main over New River was completely wrecked and large longitudinal cracks were opened up in many miles of the Alamo and other canals.

In Imperial Valley, the East Highline Canal was cracked in many places, and the Ash Canal and its laterals were severely damaged. Along the fault itself, the shift caused an offset in the canals it crossed, and in several cases structures were destroyed.

The earthquake also caused very extensive damage in most of the cities and towns of the Valley, and several people lost their lives. The remarkable thing is that great numbers were not killed or severely injured.

The entire water supply to the District's canal system had to be cut off for several days until repairs were completed and service re-established to most of the canal system. With the loss of the Solfatara Canal and the New River Flume in Lower California, the entire water supply for the west side of Imperial Valley was cut off. However, the All-American Canal had been completed from the Central Main Canal east of Calexico to the West Side Main Canal and, with water from the Central Main Canal, was put into service to supply the west side of the Valley. Had this not been available, there would have been considerable loss of crops in that area.

The Solfatara Canal was rebuilt and, together with the partial use of the All-American Canal, supplied the west side of the Valley until the balance of the All-American Canal was completed and put into service. As it was known that water would soon be available through the All-American Canal, the New River Flume in Lower California was not rebuilt.

APPENDIX C

NAHC and Other Native American Correspondence

ASM affiliates
archaeology
history
ethnography
architectural history

January 6, 2022

Ms. Gayle Totton
California Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, California 95691
Via email: nahc@nahc.ca.gov

Re: Sacred Lands File Search Request for the Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Ms. Totton,

ASM Affiliates, Inc. (ASM) is conducting a cultural resources study for the Forrester Road over Westside Main Canal Bridge Replacement project (Project), Imperial County, California. It is located on the Brawley, California USGS 7.5-minute topographic quadrangle (see attached). The Project would include the demolition of the existing County Bridge No. 58C-0014 over the Westside Main Canal and Sumac Canal, and the construction of a replacement bridge. The purpose of the proposed project is to replace the existing, structurally deficient bridge with a new, modern bridge that would be wider, satisfy current design and seismic standards, and be capable of carrying current vehicular loads. The existing bridge width, railing, transition, approach railing, and terminal sections do not meet current design standards. Several design features are seismically vulnerable, and the bridge would have a questionable safety performance during an earthquake. Embankment erosion has exposed the bridge abutment piles and undermined the roadway fill behind the abutments. The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards. The study is being undertaken in compliance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

A records search has been ordered from the South Coastal Information Center. I am writing to request a search of your Sacred Lands File and to inquire if you have registered any cultural resources, traditional cultural properties, or areas of heritage sensitivity within this proposed project area. Please send the results of this search to me at our Pasadena office, listed below, and feel free to call, write, fax (626) 793-2008, or e-mail (sandrews@asmaffiliates.com) if you have any questions. We appreciate any information you can provide on this project.

Sincerely,

Sherri Andrews

Sherri Andrews, M.A., J.D., RPA
ASM Affiliates, Inc.
Senior Archaeologist

Attachments:
Figure 1. Forrester Road Bridge Replacement Project area shown on the USGS Brawley, California 7.5-minute topographic quadrangle.

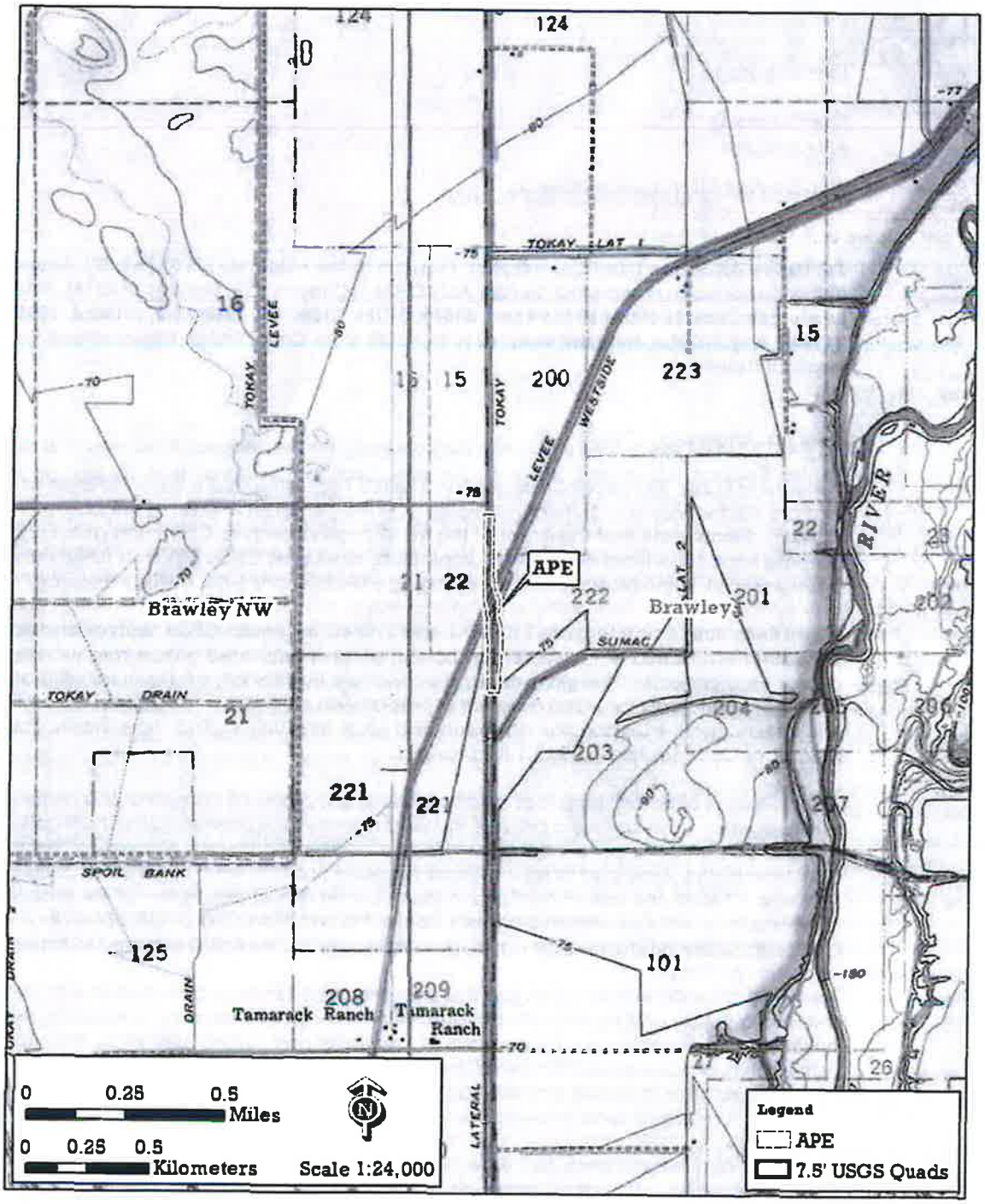


Figure 1. Forrester Road Bridge Replacement Project area shown on the USGS Brawley, California 7.5-minute topographic quadrangle.

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 7, 2022

Sherri Andrews
ASM Affiliates

Via Email to: sandrews@asmaffiliates.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County

Dear Ms. Andrews:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Ewiiaapaayp Band of Kumeyaay Indians on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Imperial County
3/7/2022

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road — Diegueno
Lakeside, CA, 92040
Phone: (619) 443 - 6612
Fax: (619) 443-0681
cloyd@barona-nsn.gov

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 933 - 2200
Fax: (619) 445-9126
michaelg@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 368 - 4382
Fax: (619) 445-9126
ceo@ebki-nsn.gov

Iipay Nation of Santa Ysabel
Virgil Perez, Chairperson
P.O. Box 130 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 765 - 0845
Fax: (760) 765-0320

Inaja-Cosmit Band of Indians
Rebecca Osuna, Chairperson
2005 S. Escondido Blvd. — Diegueno
Escondido, CA, 92025
Phone: (760) 737 - 7628
Fax: (760) 747-8568

Jamul Indian Village
Lisa Cumper, Tribal Historic Preservation Officer
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4855
lcumper@jiv-nsn.gov

Jamul Indian Village
Erica Pinto, Chairperson
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4785
Fax: (619) 669-4817
epinto@jiv-nsn.gov

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas,
P.O. Box 775 — Diegueno
Pine Valley, CA, 91962 — Kwaaymii
Phone: (619) 709 - 4207

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County.

Native American Heritage Commission
Tribal Consultation List
Imperial County
3/7/2022

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

San Pasqual Band of Diegueno Mission Indians
Allen Lawson, Chairperson
P.O. Box 365 — Diegueno
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
allenl@sanpasqualtribe.org

Sycuan Band of the Kumeyaay Nation
Cody Martinez, Chairperson
1 Kwaaypaay Court — Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

Viejas Band of Kumeyaay Indians
John Christman, Chairperson
1 Viejas Grade Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County.

Group	Contact	Date Sent	Sent Via	Response	Notes
Barona Group of the Capitan Grande	Edwin Romero, Chairperson	3/16/2022	Email	None	
Campo Band of Diegueno Mission Indians	Ralph Goff, Chairperson	3/16/2022	Email / USPS	None	rgoff not found at campo-nsn.gov; sent via USPS on 3/23/2022
Ewiiaapaayp Band of Kumeyaay Indians	Michael Garcia, Vice Chairperson	3/16/2022	Email	None	
Ewiiaapaayp Band of Kumeyaay Indians	Robert Pinto, Chairperson	3/16/2022	Email	3/16/2022: no comments or concerns, Will Micklin, CEO	
Iipay Nation of Santa Ysabel	Virgil Perez, Chairperson	3/23/2022	USPS	None	
Inaja-Cosmit Band of Indians	Rebecca Osuna, Chairperson	3/23/2022	USPS	None	
Jamul Indian Village	Lisa Cumper, Tribal Historic Preservation Officer	3/16/2022	Email	None	
Jamul Indian Village	Erica Pinto, Chairperson	3/16/2022	Email	None	
Kwaaymii Laguna Band of Mission Indians	Carmen Lucas	3/23/2022	USPS	None	
La Posta Band of Diegueno Mission Indians	Gwendolyn Parada, Chairperson	3/16/2022	Email	None	
La Posta Band of Diegueno Mission Indians	Javaughn Miller, Tribal Administrator	3/16/2022	Email / USPS	None	jmiller not found at lptribe.net; sent via USPS on 3/23/2022
Manzanita Band of Kumeyaay Nation	Angela Elliott Santos, Chairperson	3/23/2022	USPS	None	
Mesa Grande Band of Diegueno Mission Indians	Michael Linton, Chairperson	3/16/2022	Email / USPS	None	Email box full; sent via USPS on 3/23/2022
Quechan Tribe of the Fort Yuma Reservation	Jill McCormick, Historic Preservation Officer	/3/16/2022	Email	None	
San Pasqual Band of Diegueno Mission Indians	Allen Lawson, Chairperson	3/16/2022	Email	None	

Group	Contact	Date Sent	Sent Via	Response	Notes
Sycuan Band of the Kumeyaay Nation	Cody Martinez, Chairperson	3/16/2022	Email	None	
Viejas Band of Kumeyaay Indians	John Christman, Chairperson	3/23/2022	USPS	None	

ASM affiliates
archaeology
history
ethnography
architectural history

March 16, 2022

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road
Alpine, California 91901
Via email: ceo@ebki-nsn.gov

Re: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairperson Pinto,

ASM Affiliates, Inc. (ASM) is conducting a cultural resources study in support of Caltrans documentation being created for the Forrester Road over Westside Main Canal Bridge Replacement project (Project), Imperial County, California. It is located on the Brawley, California USGS 7.5-minute topographic quadrangle (see attached). The Project would include the demolition of the existing County Bridge No. 58C-0014 over the Westside Main Canal and Sumac Canal, and the construction of a replacement bridge. The purpose of the proposed project is to replace the existing, structurally deficient bridge with a new, modern bridge that would be wider, satisfy current design and seismic standards, and be capable of carrying current vehicular loads. The existing bridge width, railing, transition, approach railing, and terminal sections do not meet current design standards. Several design features are seismically vulnerable, and the bridge would have a questionable safety performance during an earthquake. Embankment erosion has exposed the bridge abutment piles and undermined the roadway fill behind the abutments. The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards. The study is being undertaken in compliance with the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA).

A records search performed by the South Coastal Information Center yielded negative results, as did an intensive pedestrian survey conducted by ASM in January 2022. The bridge area was also surveyed in 2000 by Jay von Werlhof and Carmen Lucas; this survey was also negative. However, a search of the Native American Heritage Commission's (NAHC) Sacred Lands File yielded positive results. The NAHC response also included a list of contacts, upon which you appear. As a result, we would appreciate any information you may wish to share regarding Native American cultural resources located in or near the proposed Project location or concerns you may have regarding the proposed Project. This query is for informational purposes only. Any information concerning the location, identity, character, and traditional use of cultural places identified will be considered strictly confidential. Your response within 30 days of this letter will be appreciated.

You may contact me at sandrews@asmaffiliates.com, (626) 793-7395, or the Pasadena office address provided below. Thank you in advance for taking the time to review this request.

Respectfully yours,

Sherri Andrews

Sherri Andrews, M.A., RPA
Senior Archaeologist

2034 Corte Del Nogal, Carlsbad, California 92011 • (760) 804-5757 • Fax: (760) 804-5755
20 N. Raymond Ave., Suite 220, Pasadena, California 91103 • (626) 793-7395
www.asmaffiliates.com

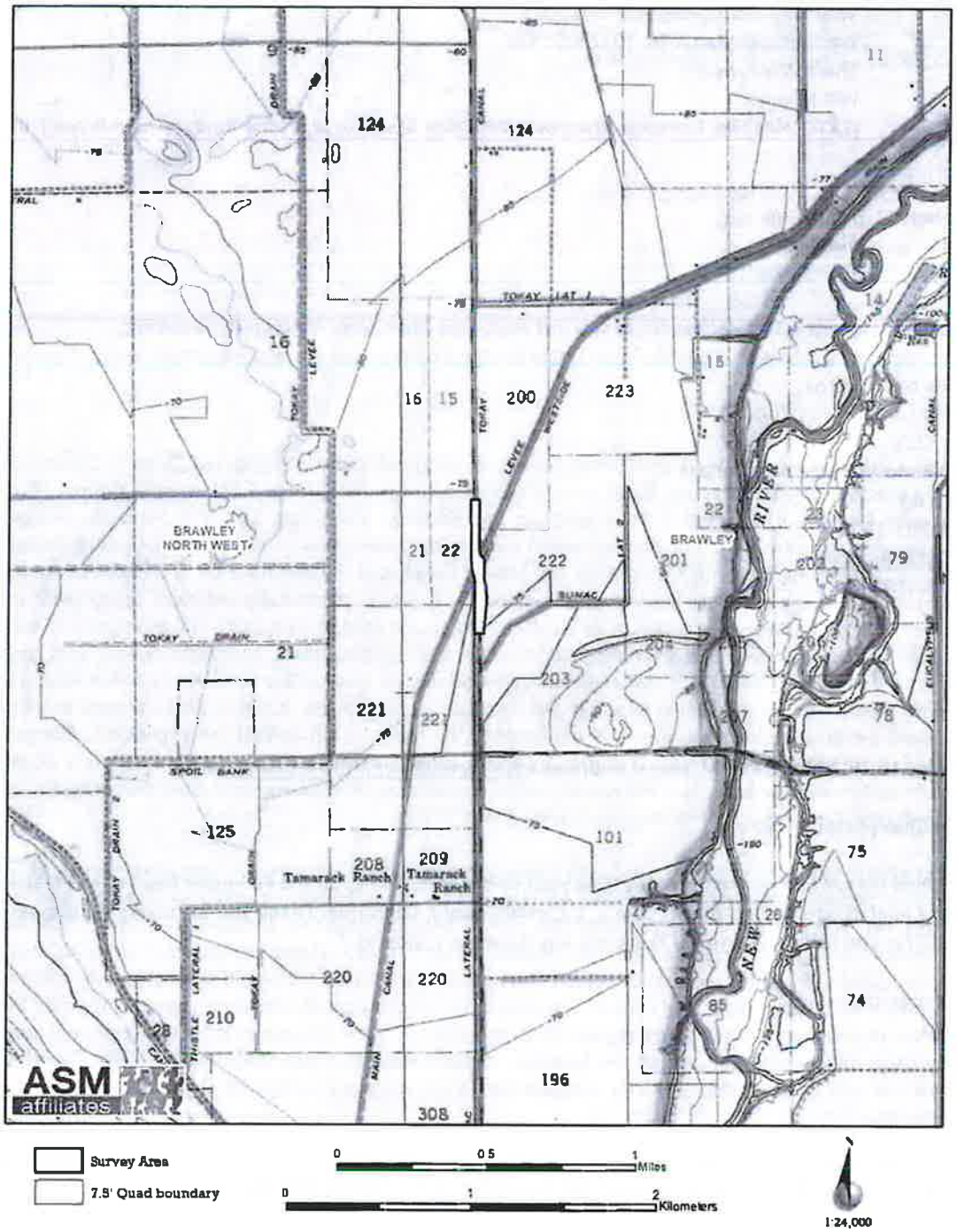


Figure 1. Map of the Forrester Road over Westside Main Canal Bridge Replacement Project area shown on the USGS Brawley, California 7.5-minute topographic quadrangle.

Sherri Andrews

From: Willie Micklin <ceo@ebki-nsn.gov>
Sent: Wednesday, March 16, 2022 4:51 PM
To: Sherri Andrews
Cc: Will Micklin
Subject: [EXTERNAL] Re: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County

Follow Up Flag: Follow up
Flag Status: Flagged

No comments or concerns.

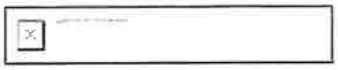
Will Micklin, CEO
Ewiiaapaayp Band of Kumeyaay Indians
4054 Willows Rd
Alpine, CA 91901-1620
Email: ceo@ebki-nsn.gov
Tel: (619) 368-4382

On Mar 16, 2022, at 1:45 PM, Sherri Andrews <sandrews@asmaffiliates.com> wrote:

Dear Chairperson Pinto --

Attached please find our letter requesting your comments, if any, on the Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California. Thank you for taking time to review this letter and letting us know if there are any issues or concerns.

Best regards,
Sherri



Sherri Andrews M.A., J.D., RPA | Senior Archaeologist
20 N. Raymond Ave., Suite 220 Pasadena, CA | O: (626) 793-7395 | M:
sandrews@asmaffiliates.com | https://asmaffiliates.com

<Forrester Road Bridge_Ewiiaapaayp Band Pinto.pdf>

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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ICDPW

January 19, 2022

Fort Yuma - Quechan Indian Tribe
Jordan D. Joaquin, President
350 W. Picacho Road
Winterhaven, CA 92283

Subject: Formal Notification Pursuant to Public Resources Code §21080.3.1 (Assembly Bill 52) for the Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Mr. Joaquin:

Pursuant to California Public Resources Code (PRC) §21080.3.1, Imperial County (County), as the California Environmental Quality Act (CEQA) Lead Agency, hereby provides formal notification of the County's decision to undertake the Forrester Road over Westside Main Canal Bridge Replacement Project (project). The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of CEQA. The Fort Yuma - Quechan Indian Tribe has 30 days from receipt of this formal notification to request consultation under PRC §21080.3.1.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 70-mile-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful

way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

Figure 1: Project Location

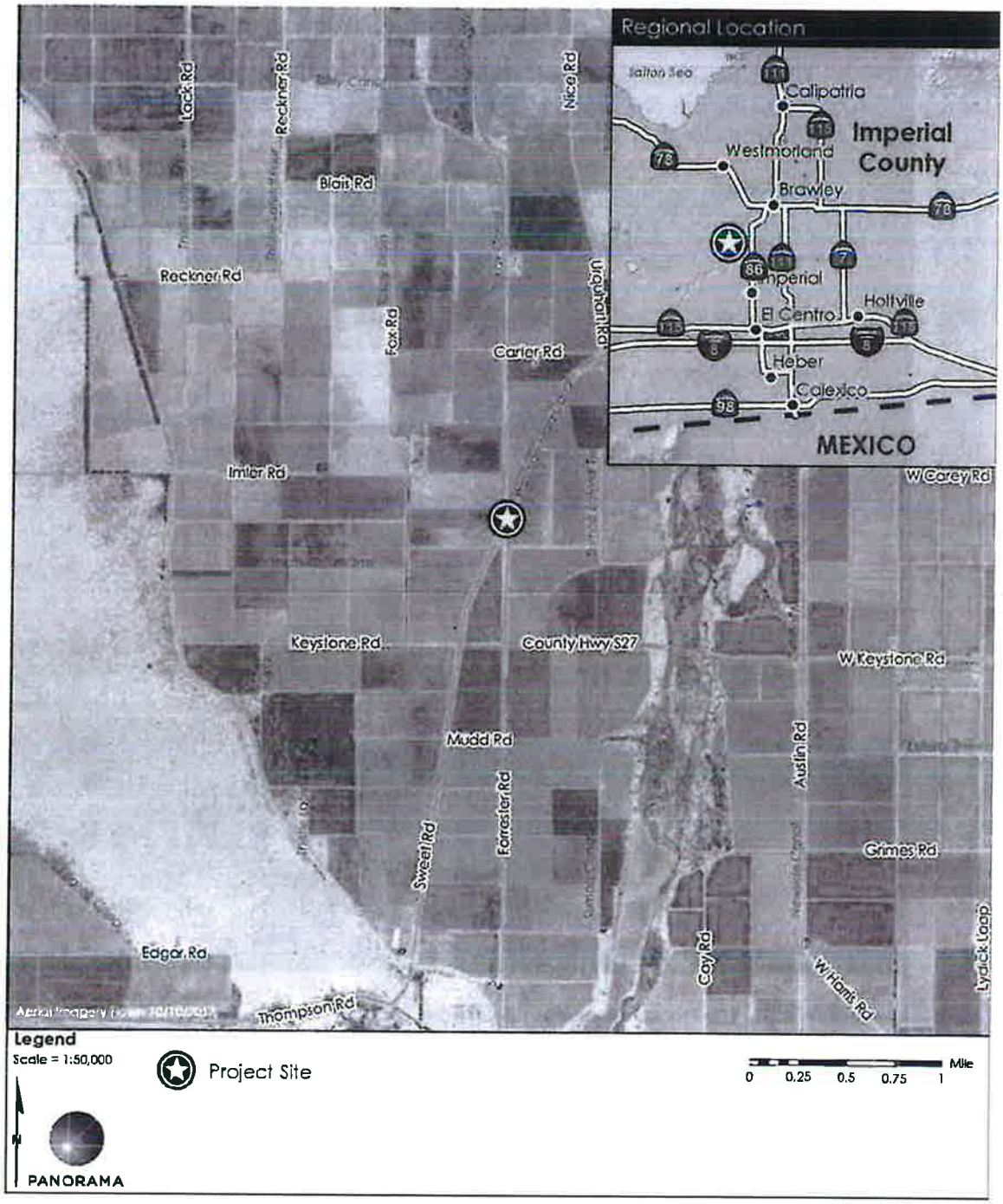
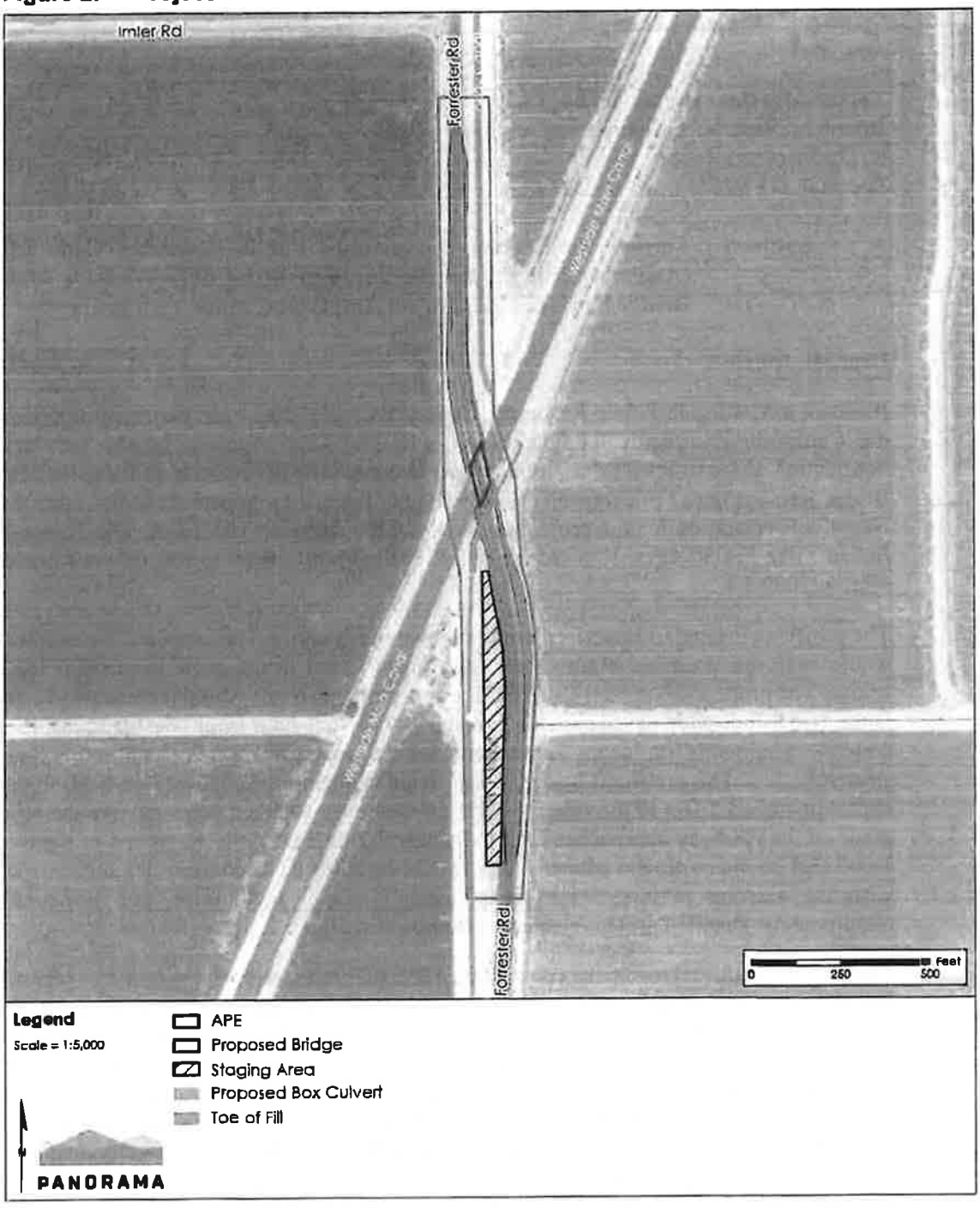


Figure 2: Project Elements



COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS

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January 19, 2022

Torres-Martinez Indian Tribe
Joseph Mirelez, Vice Chairperson
66725 Martinez Road
Thermal, CA 92274

Subject: Formal Notification Pursuant to Public Resources Code §21080.3.1 (Assembly Bill 52) for the Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Mr. Mirelez:

Pursuant to California Public Resources Code (PRC) §21080.3.1, Imperial County (County), as the California Environmental Quality Act (CEQA) Lead Agency, hereby provides formal notification of the County's decision to undertake the Forrester Road over Westside Main Canal Bridge Replacement Project (project). The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of CEQA. The Torres-Martinez Indian Tribe has 30 days from receipt of this formal notification to request consultation under PRC §21080.3.1.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 70-mile-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful

EEC ORIGINAL PKG

way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Respectfully

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

Figure 1: Project Location

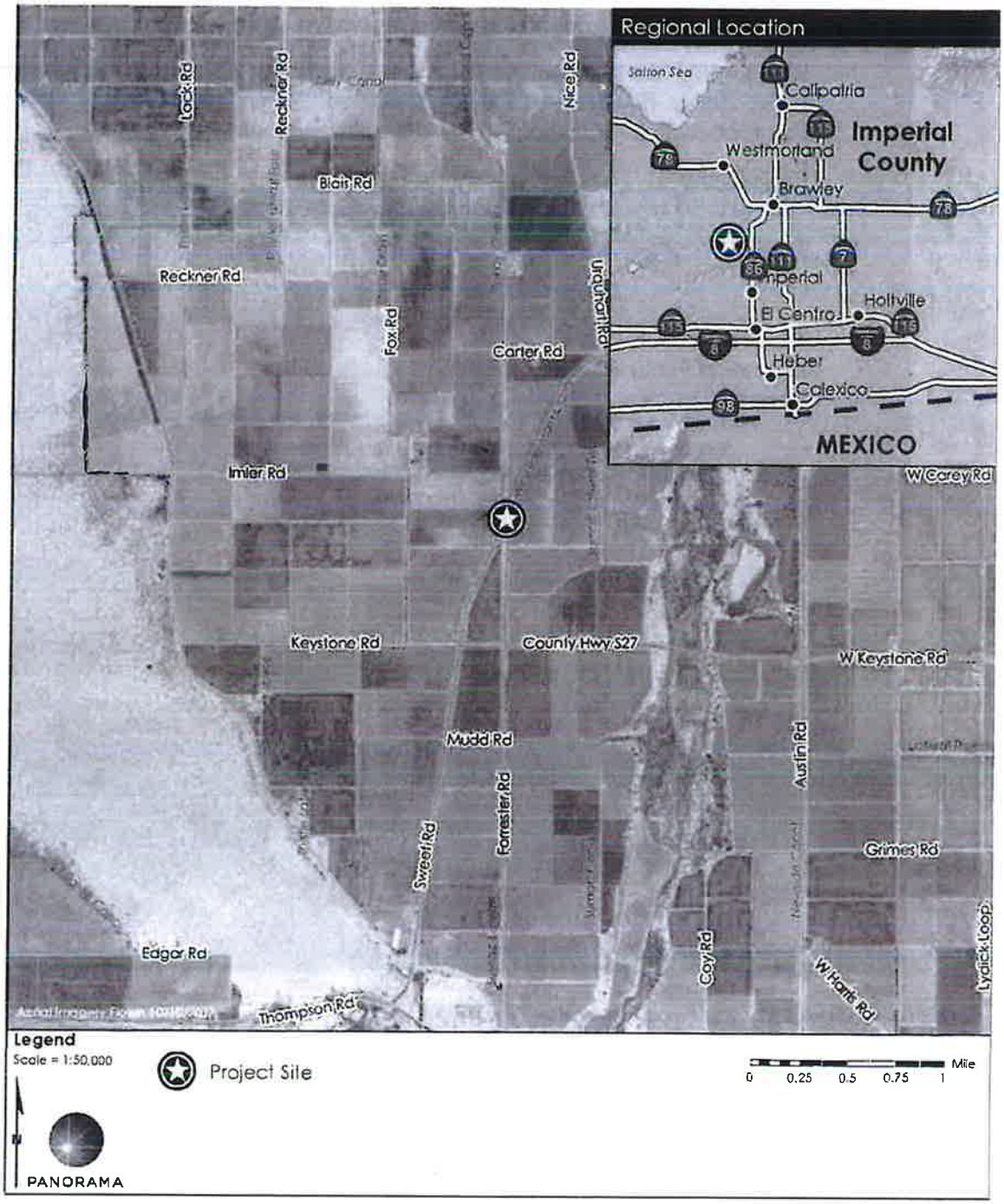
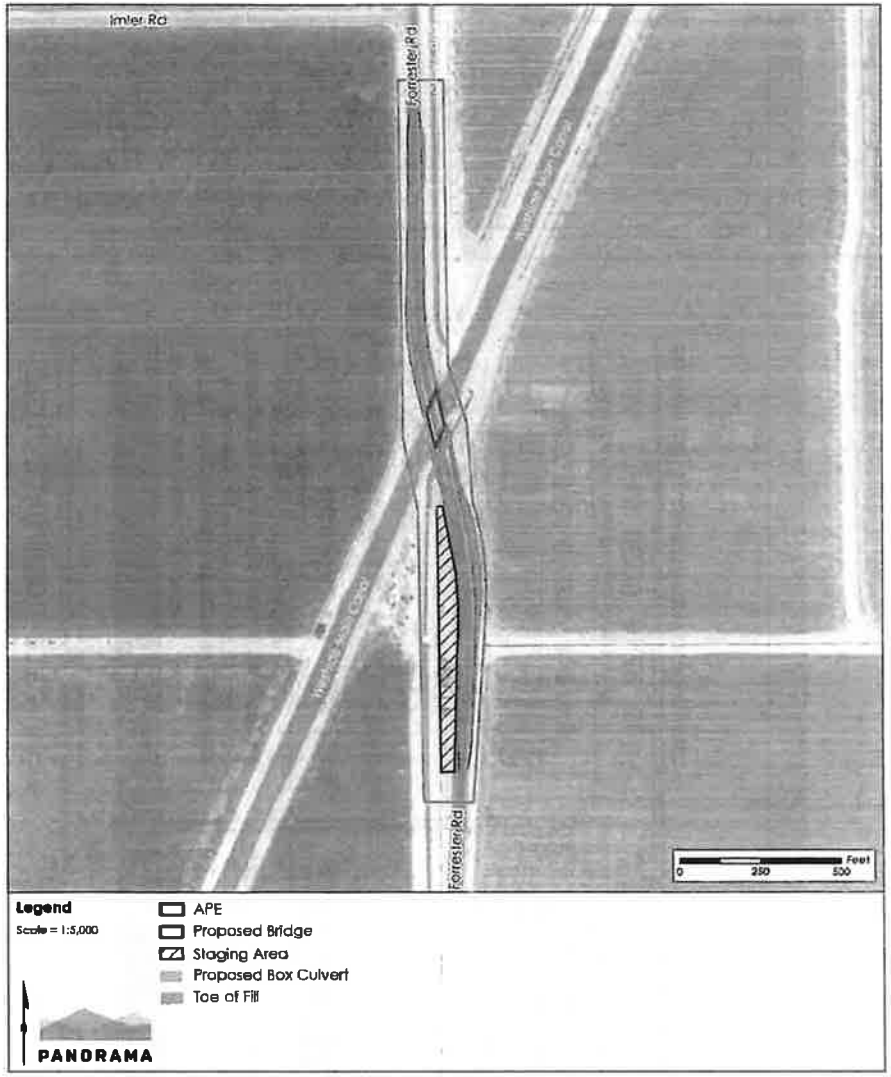


Figure 2: Project Elements



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

FT. YUMA - QUECHAN INDIAN TRIBE
NORMAN D. JOAQUIN, PRESIDENT
350 W. PICACHO PASS RD.
WINTERHAVEN, CA 92283

9590 9402 4545 8278 3974 44

2. Article Number (Transfer from service label)
7016 2140 0000 2122 8828

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) [illegible] C. Date of Delivery 7/11/16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TORRES-MARTINEZ INDIAN TRIBE
JOSEPH MIRELES, VICE CHAIRPERSON
66725 MARTINEZ RD.
THERMAL, CA 92274

9590 9402 4545 8278 3974 37

2. Article Number (Transfer from service label)
7016 2140 0000 2122 8804

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☑ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

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County Letterhead

January 21, 2022

Raymond Welch, Chairman
Barona Band of Mission Indians
Barona Tribal Government Office
1095 Barona Road
Lakeside, CA 92040

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Barona Band of Mission Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

Figure 1: Project Location

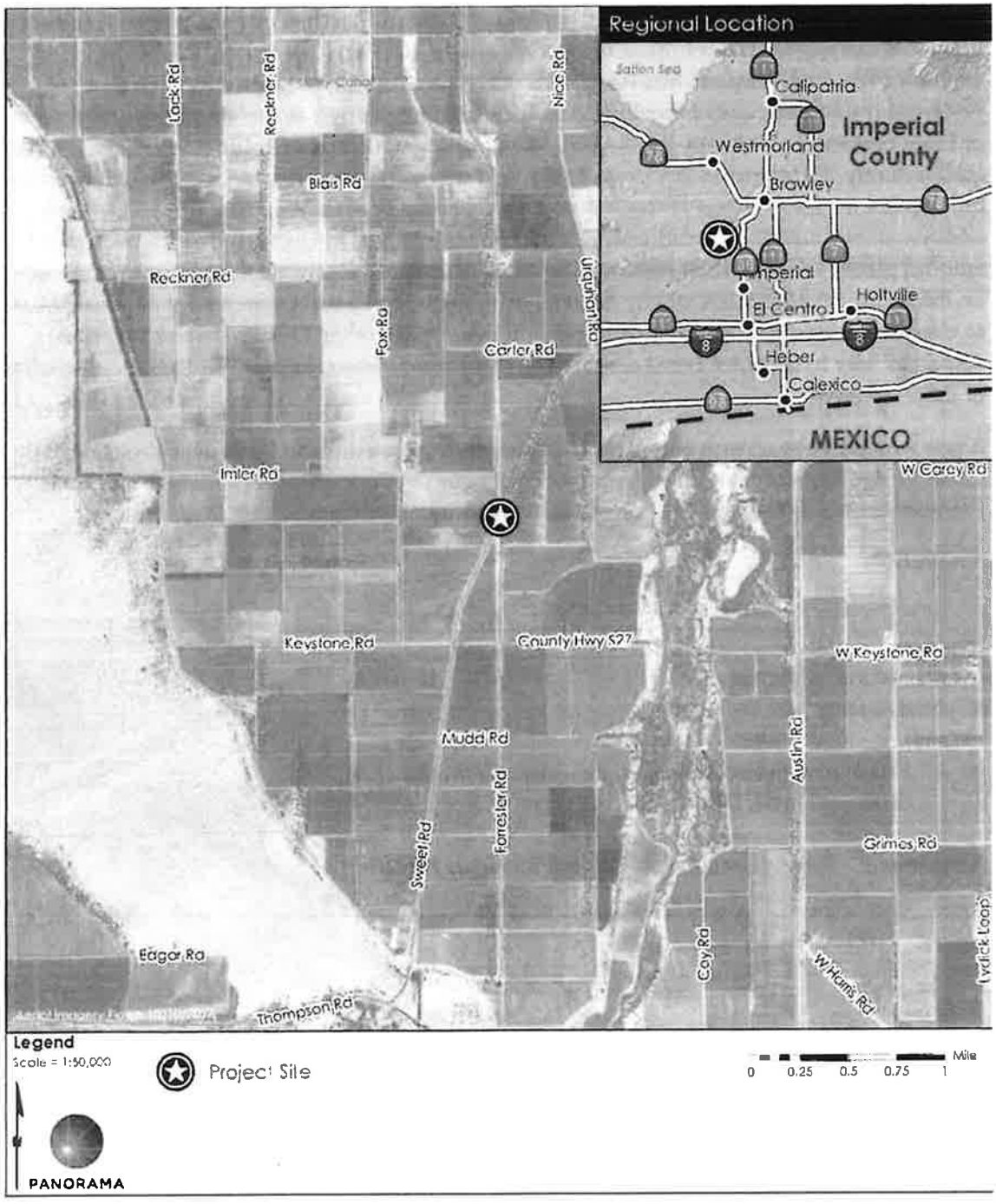
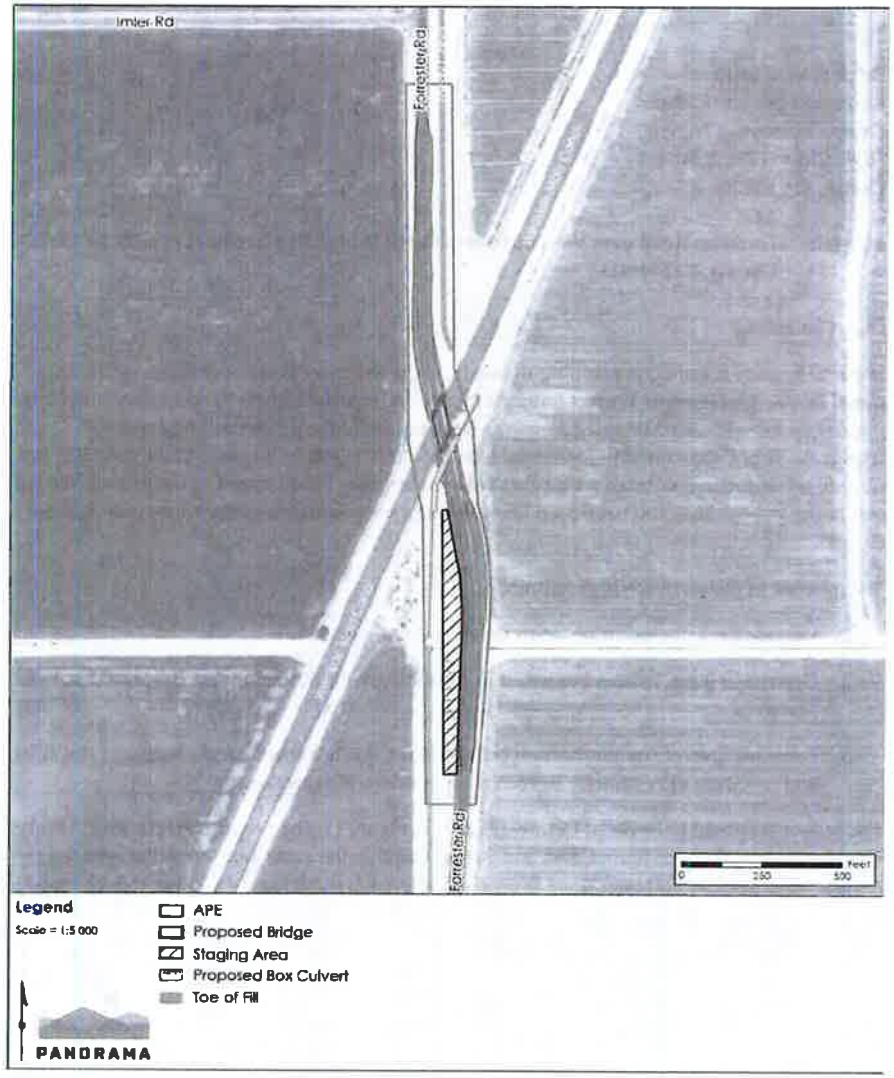


Figure 2: Project Elements



County Letterhead

January 21, 2022

Ralph Goff, Chairman
Kumeyaay Nation: Campo
Campo Kumeyaay Nation
36190 Church Road, Suite 1
Campo, CA 91906

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Kumeyaay Nation: Campo.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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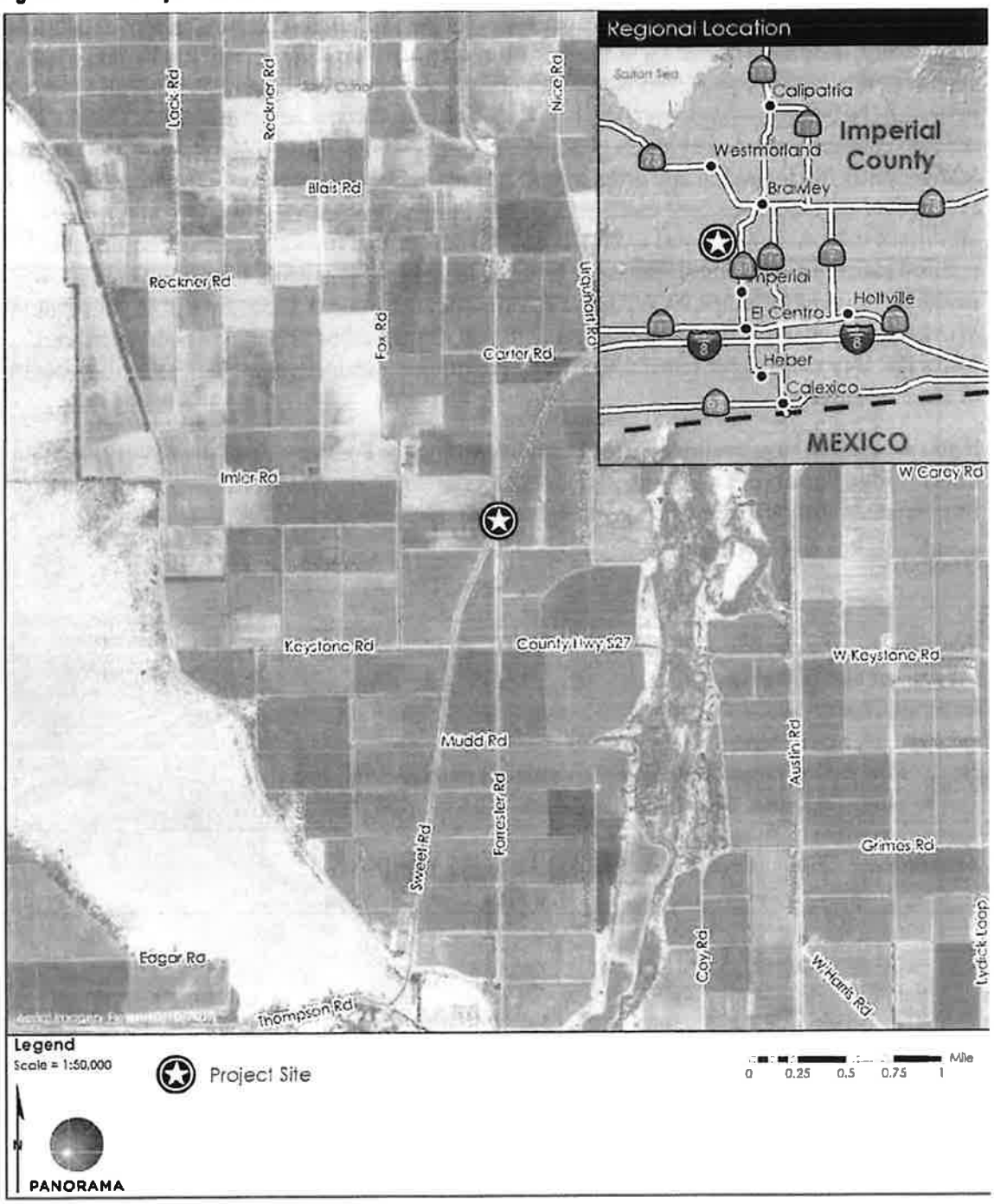
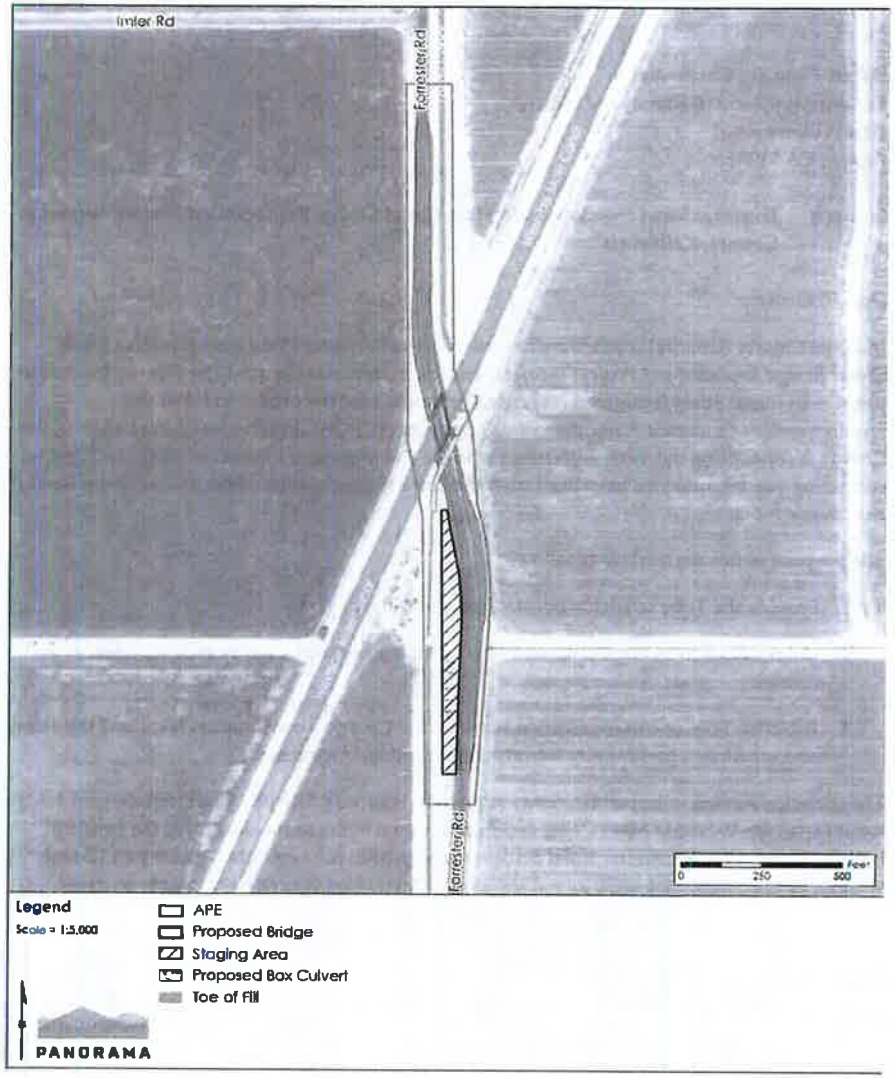


Figure 2: Project Elements



County Letterhead

January 21, 2022

Robert Pinto Sr., Chairman
Ewiiaapaayp Band of Kumeyaay Indians
4054 Willows Road
Alpine, CA 91901

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Ewiiaapaayp Band of Kumeyaay Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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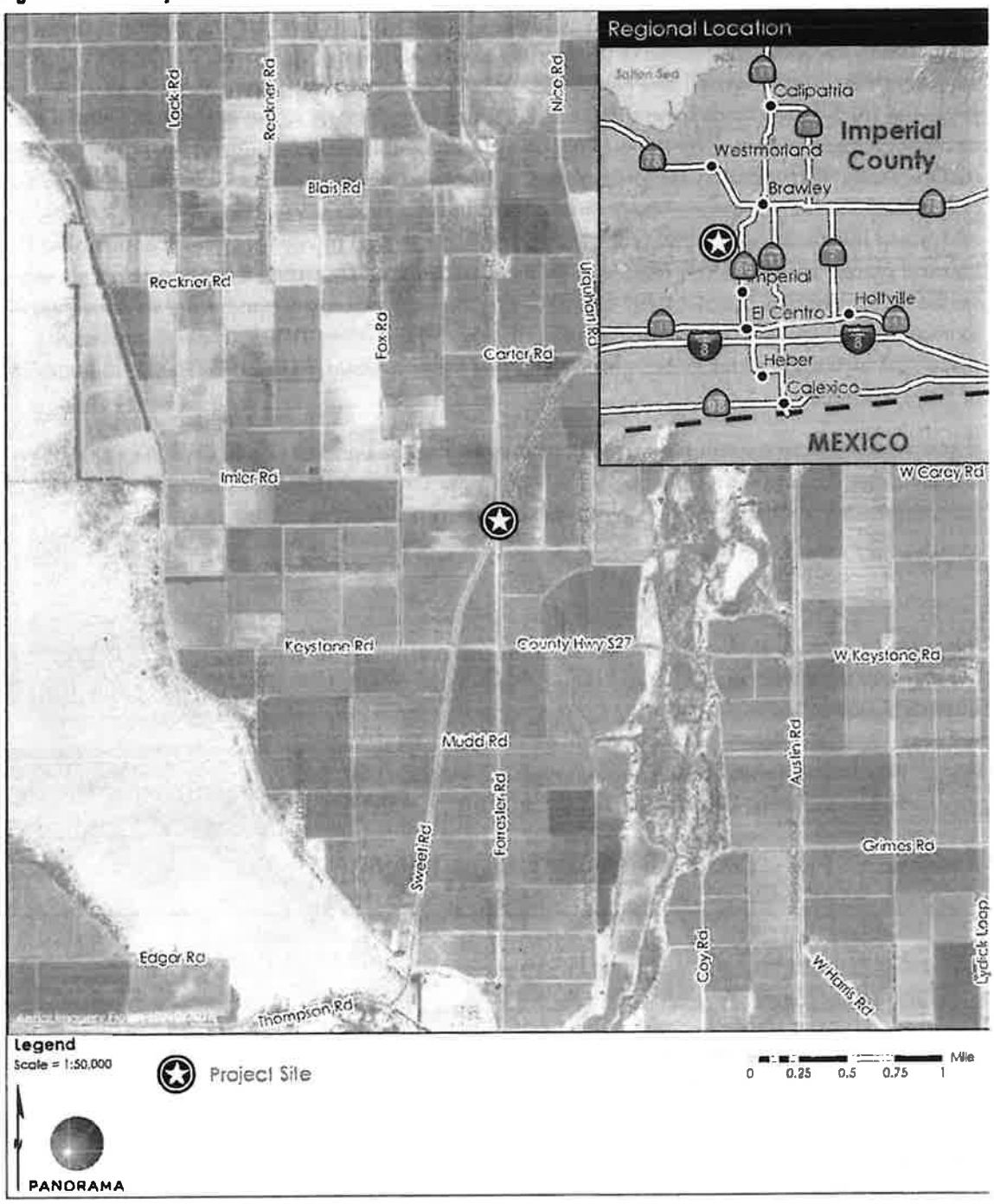
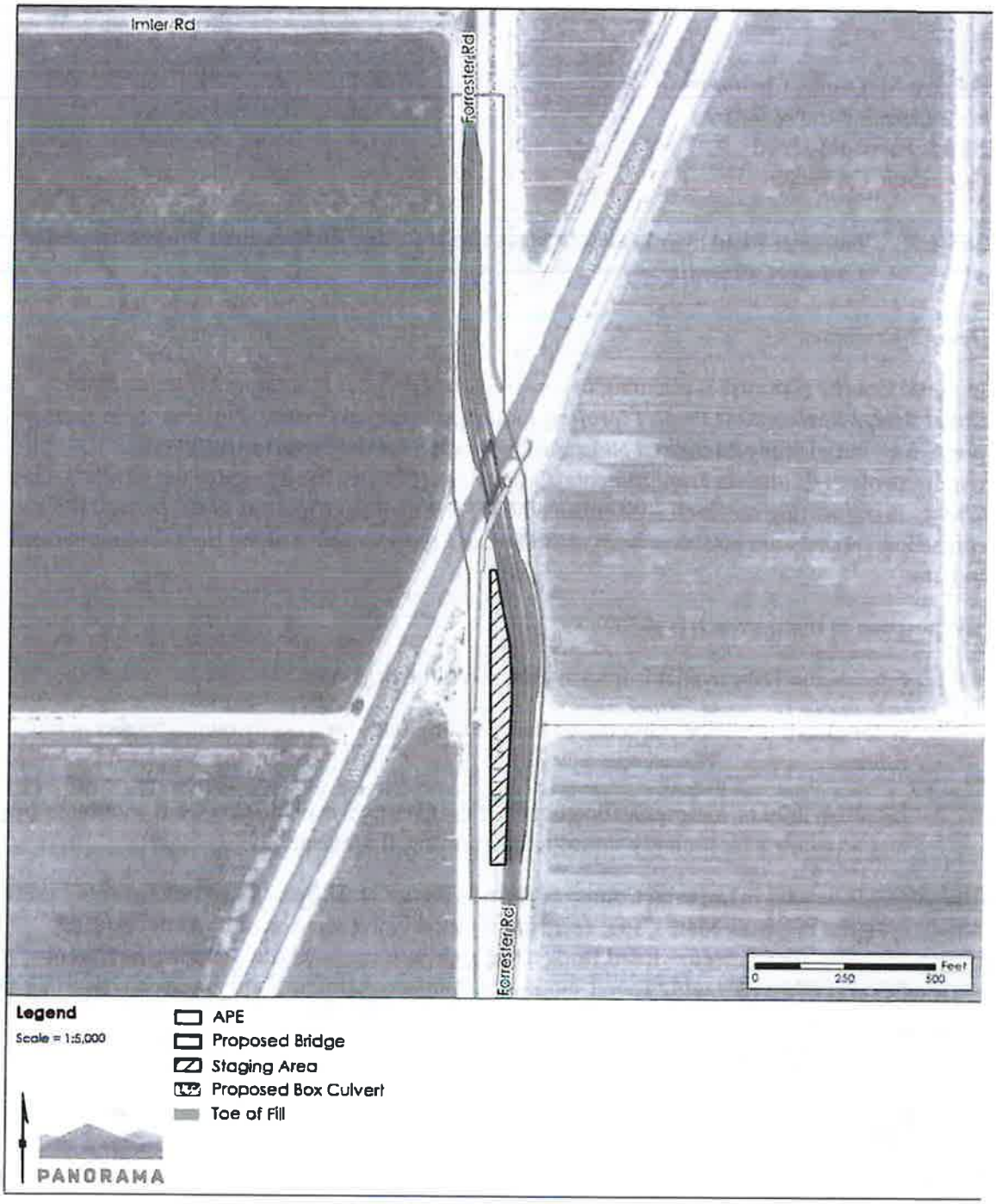


Figure 2: Project Elements



County Letterhead

January 21, 2022

Rebecca M. Osuna, Chairwoman
Inaja-Cosmit Band of Indians
2005 S. Escondido Blvd.
Escondido, CA 92025

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairwoman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Inaja-Cosmit Band of Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

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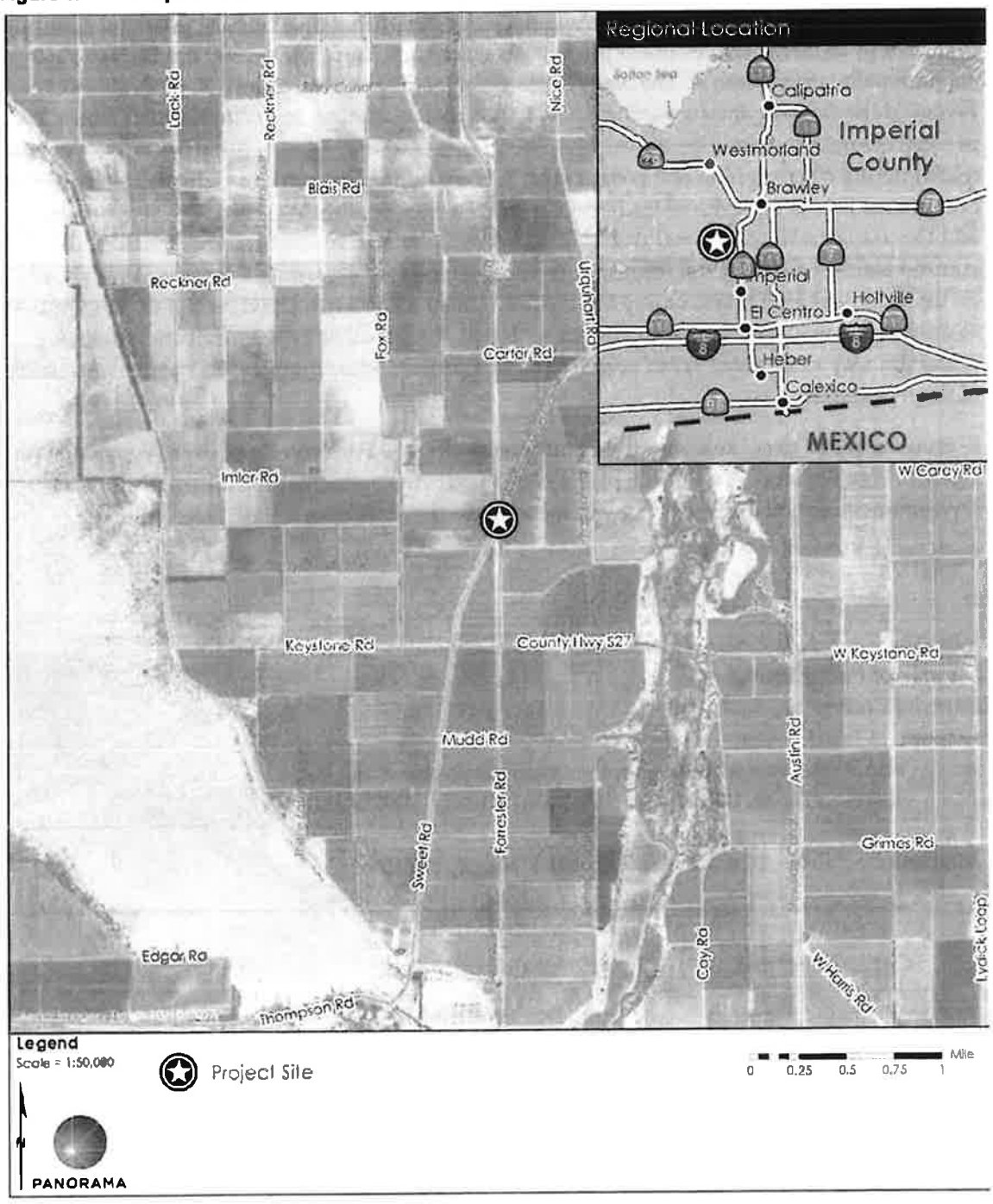
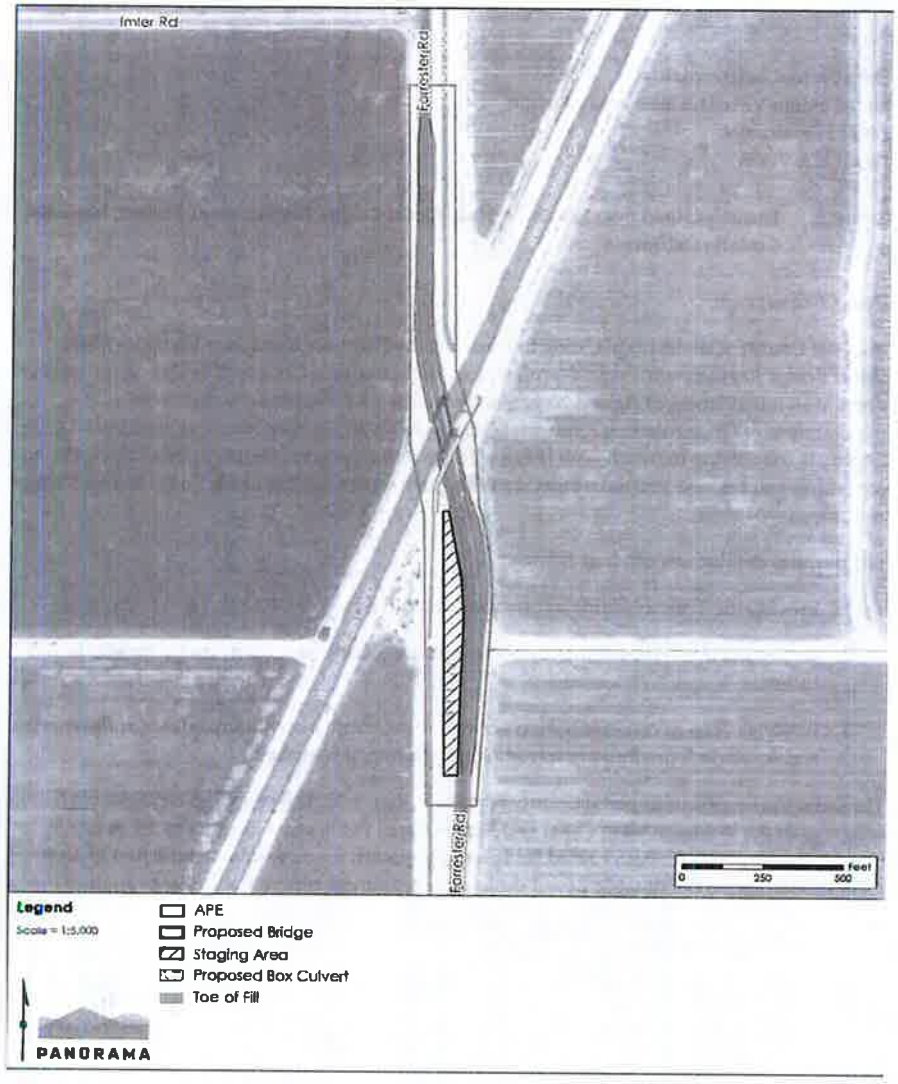


Figure 2: Project Elements



County Letterhead

January 21, 2022

Erica Pinto, Chairwoman
Jamul Indian Village A Kumeyaay Nation
14191 Highway 94
Jamul, CA 91935

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairwoman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Jamul Indian Village A Kumeyaay Nation.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

Figure 1: Project Location

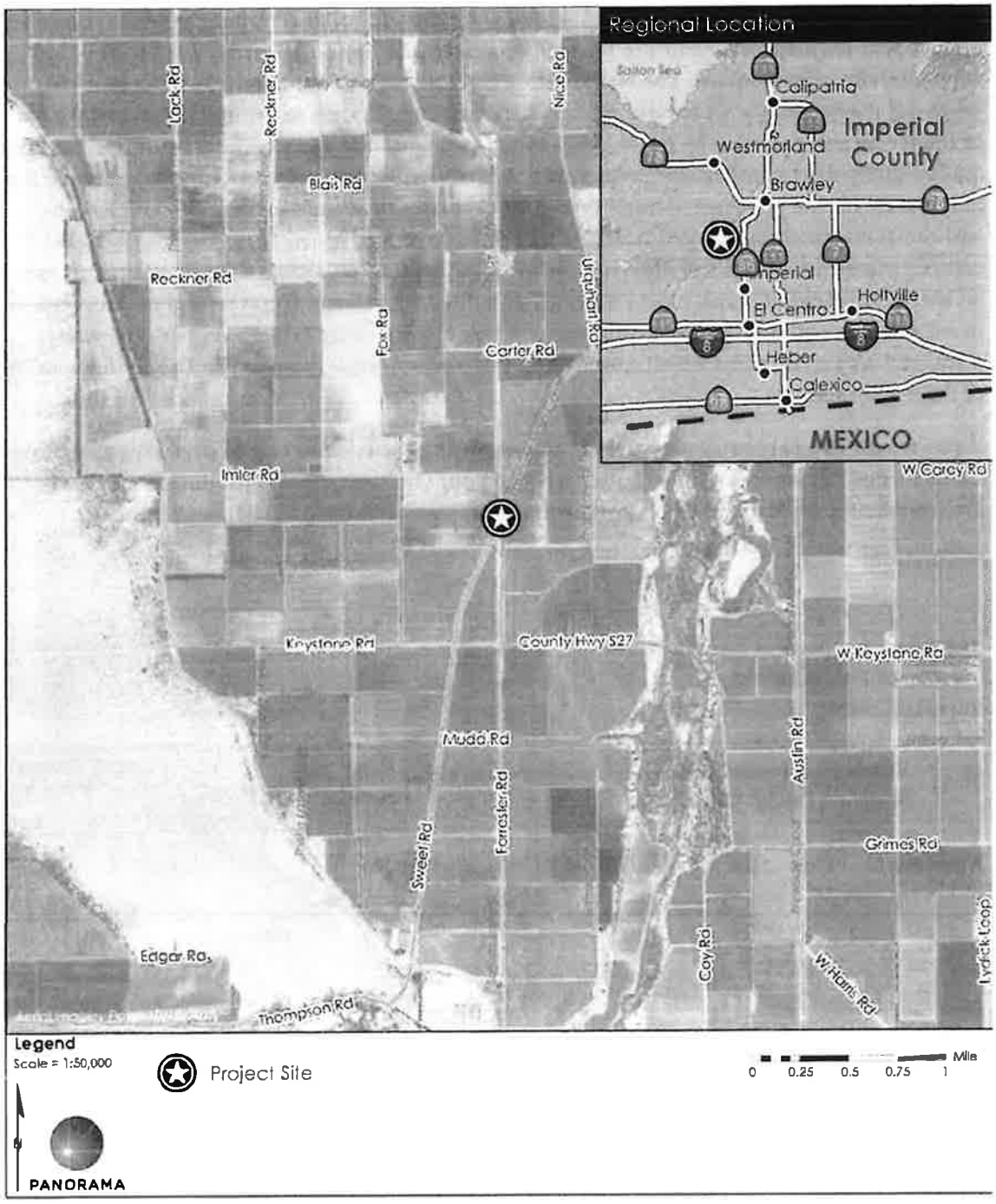
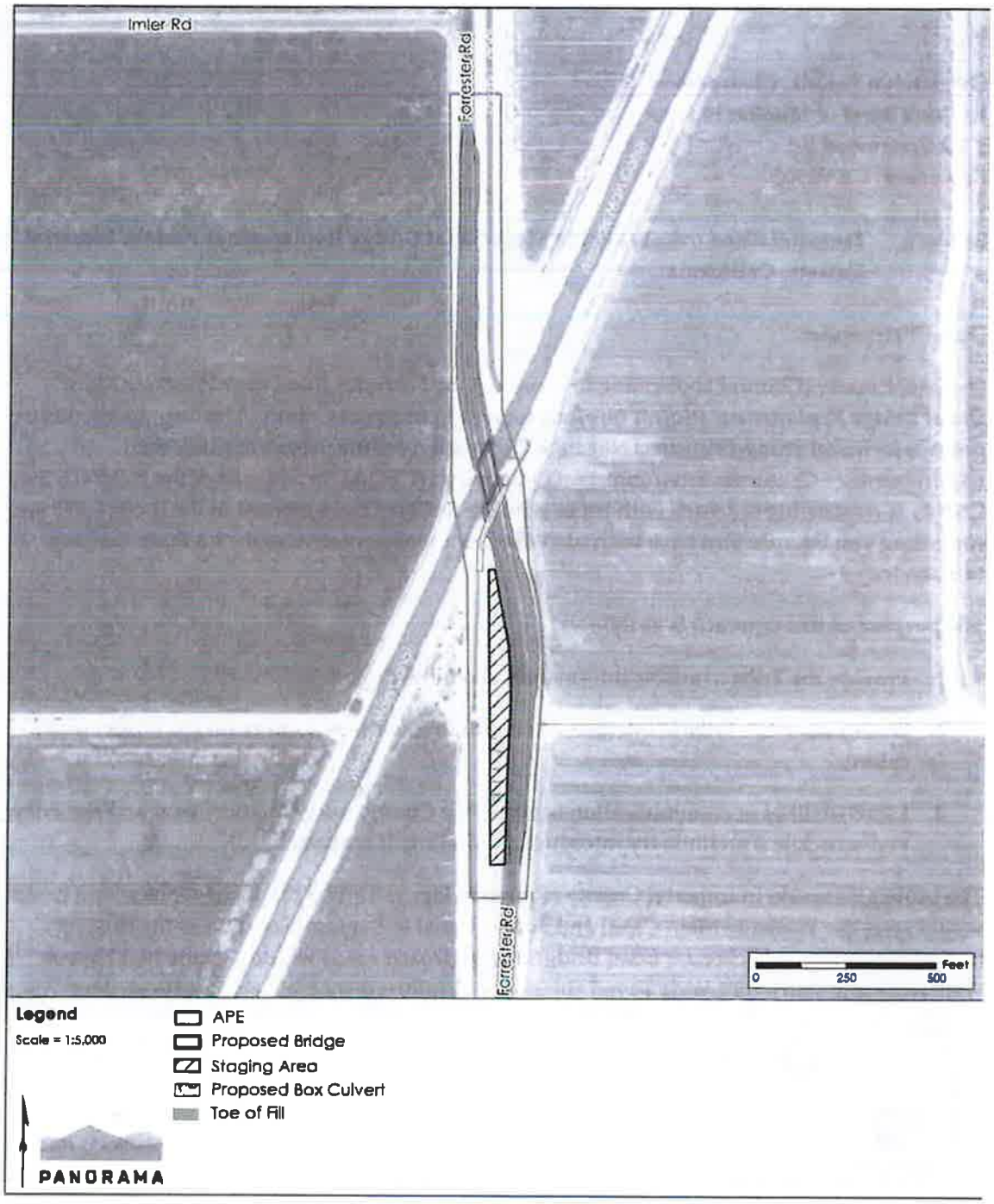


Figure 2: Project Elements



County Letterhead

January 21, 2022

Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
8 1/2 Crestwood Rd.
Boulevard, CA 91905

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairperson:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the La Posta Band of Mission Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

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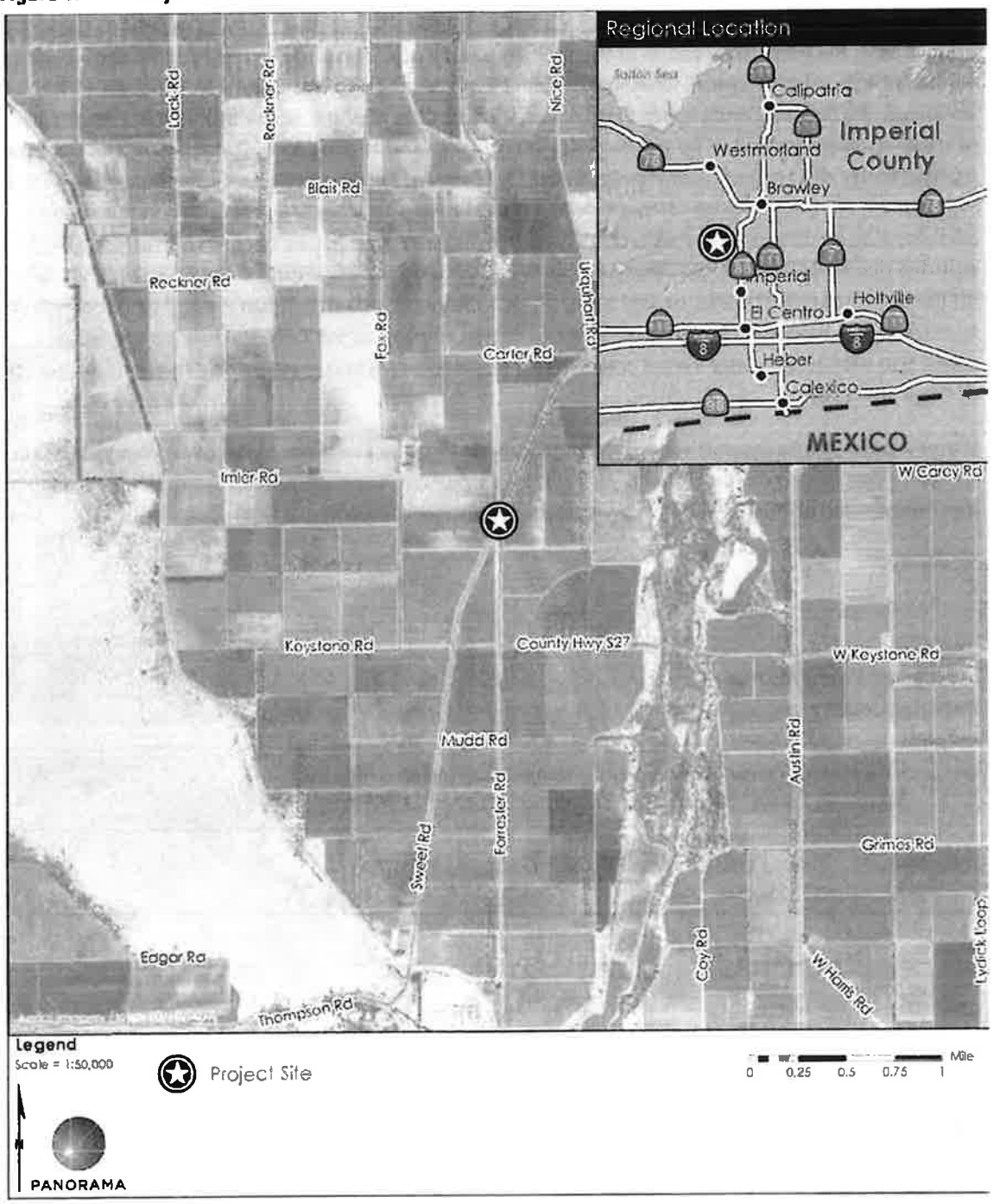
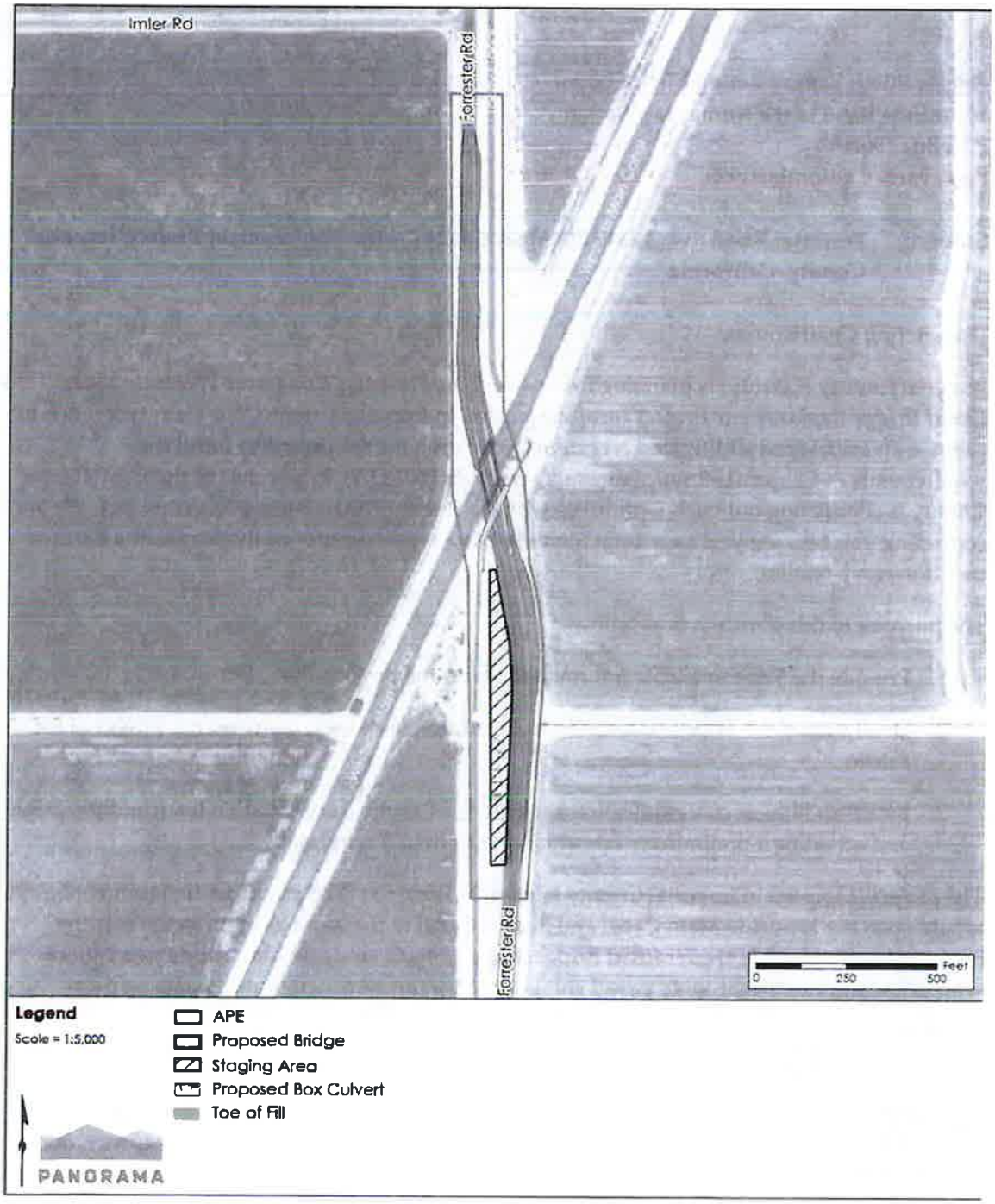


Figure 2: Project Elements



County Letterhead

January 21, 2022

Angela Elliott Santos, Acting Chairwoman
Manzanita Band of the Kumeyaay Nation
P.O. Box 1302
Boulevard, California 91905

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Acting Chairwoman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Manzanita Band of the Kumeyaay Nation.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

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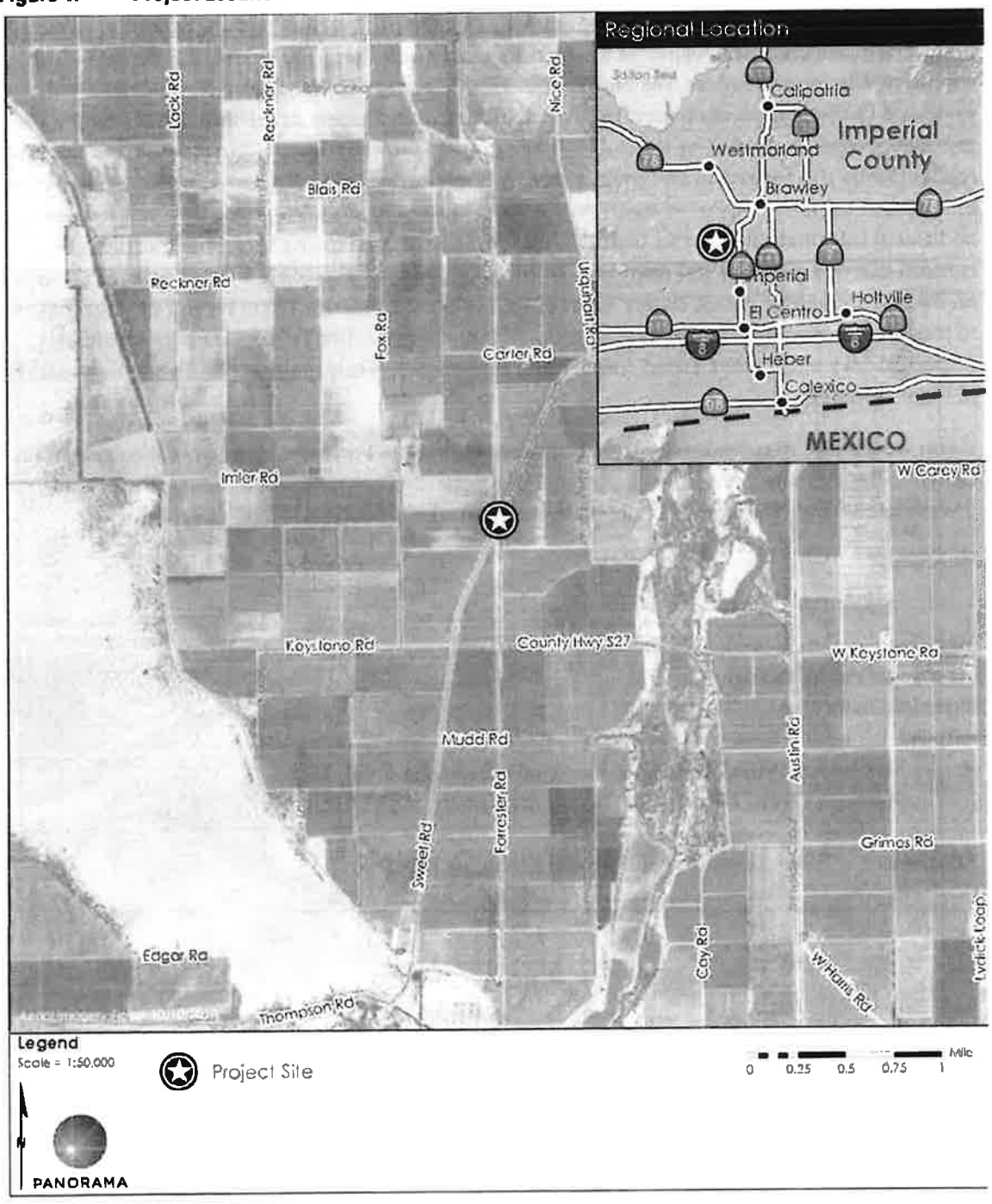
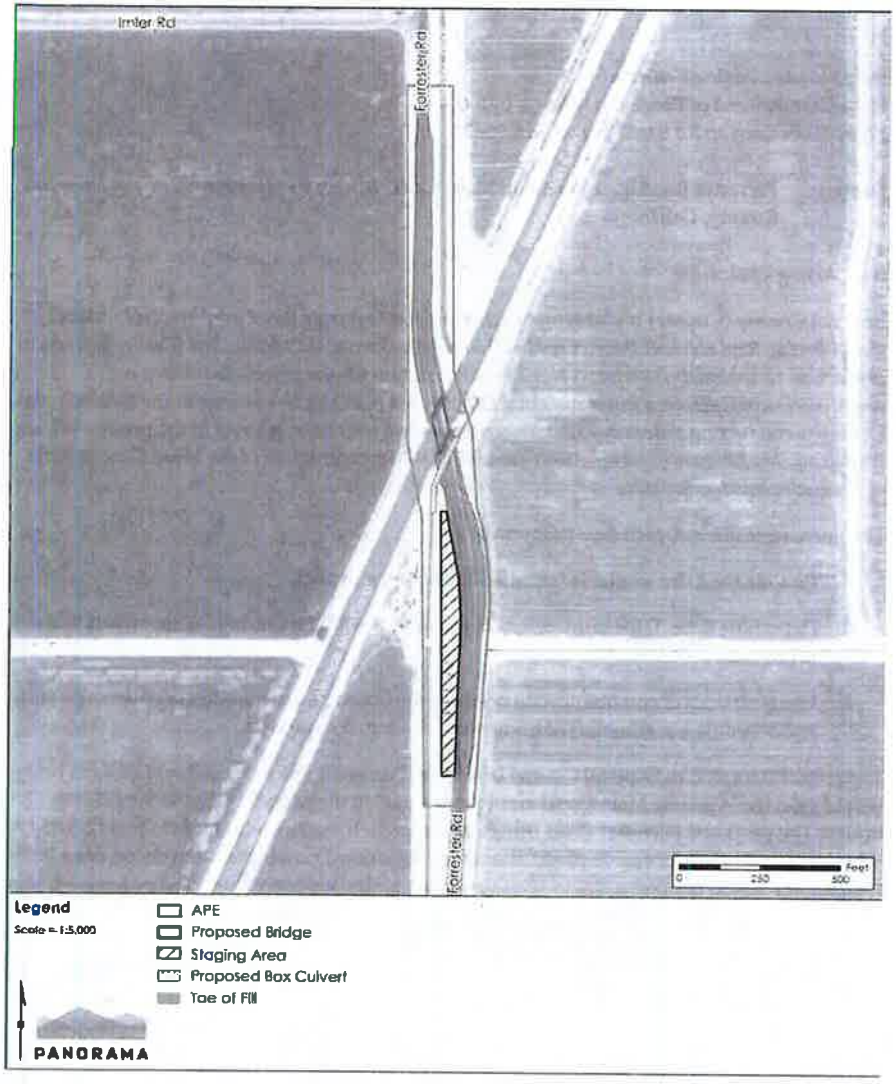


Figure 2: Project Elements



County Letterhead

January 21, 2022

Jesse Morales, Acting Chairman
Mesa Grande Band of Diegueño Mission Indians
27000 Black Canyon Rd Santa Ysabel, CA 92070

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Acting Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Mesa Grande Band of Diegueño Mission Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural

resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

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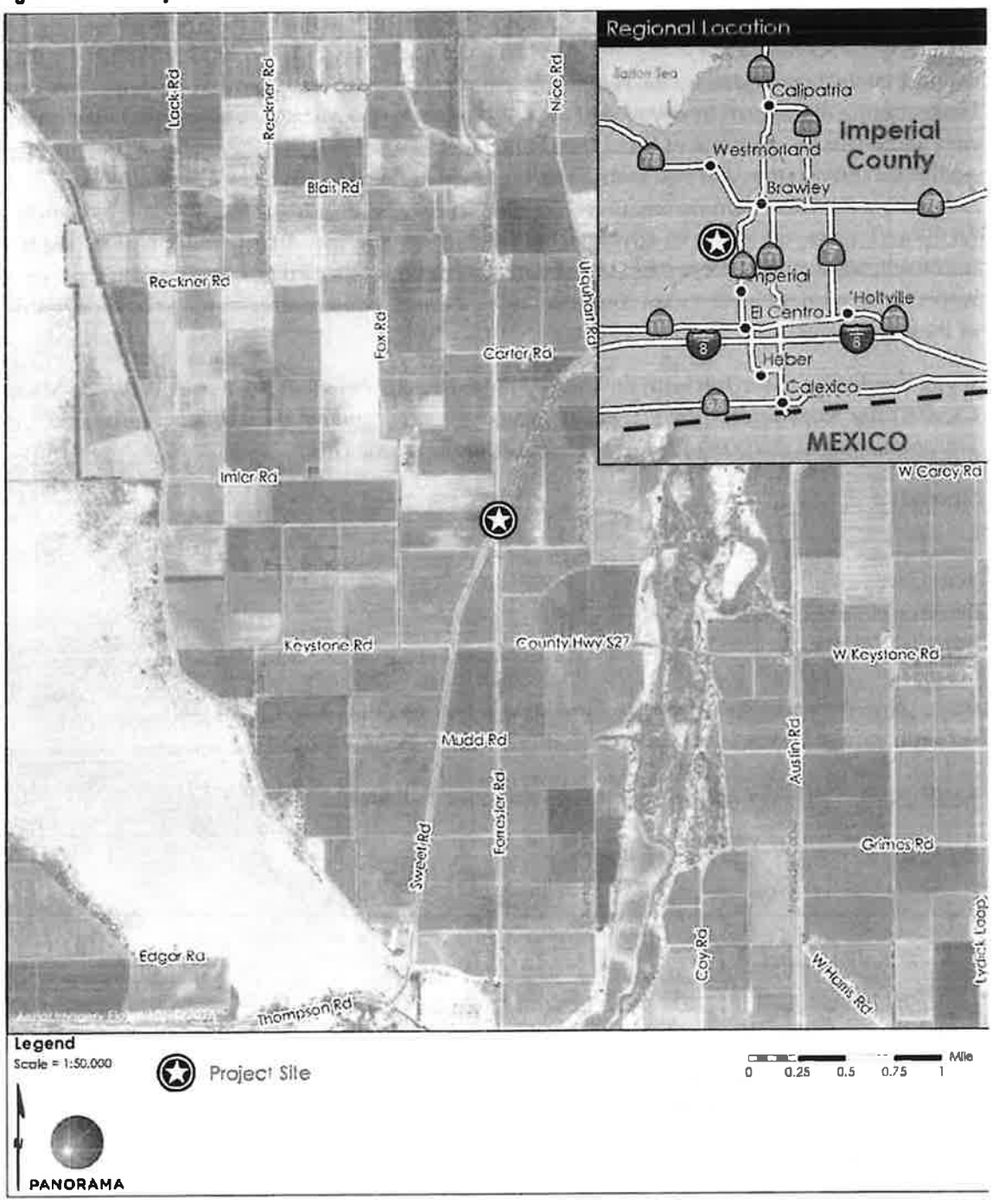
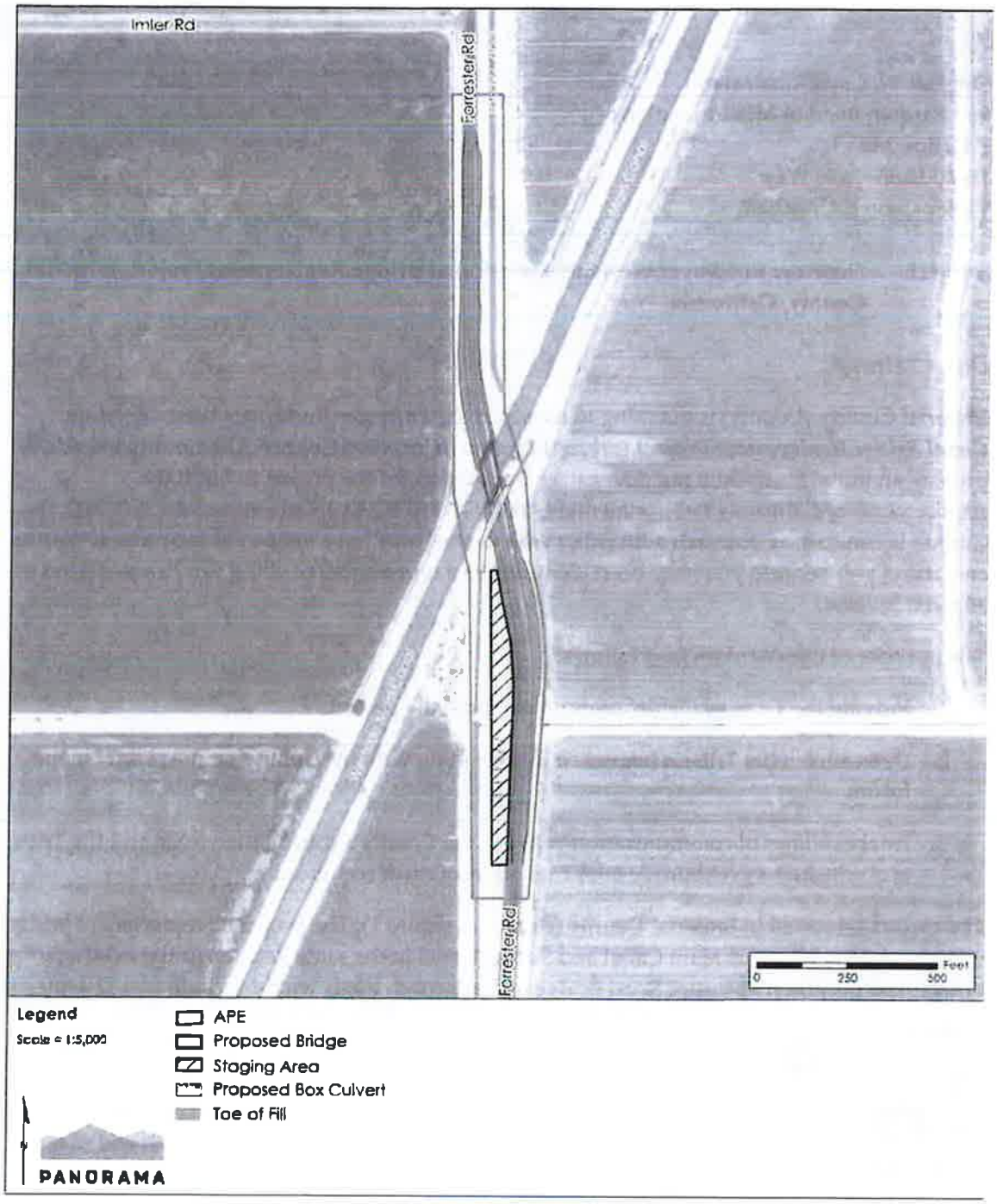


Figure 2: Project Elements



County Letterhead

January 21, 2022

Stephan W. Cope, Chairman
San Pasqual Band of Mission Indians
P.O. Box 365
16400 Kumeyaay Way
Valley Center, CA 92082

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the San Pasqual Band of Mission Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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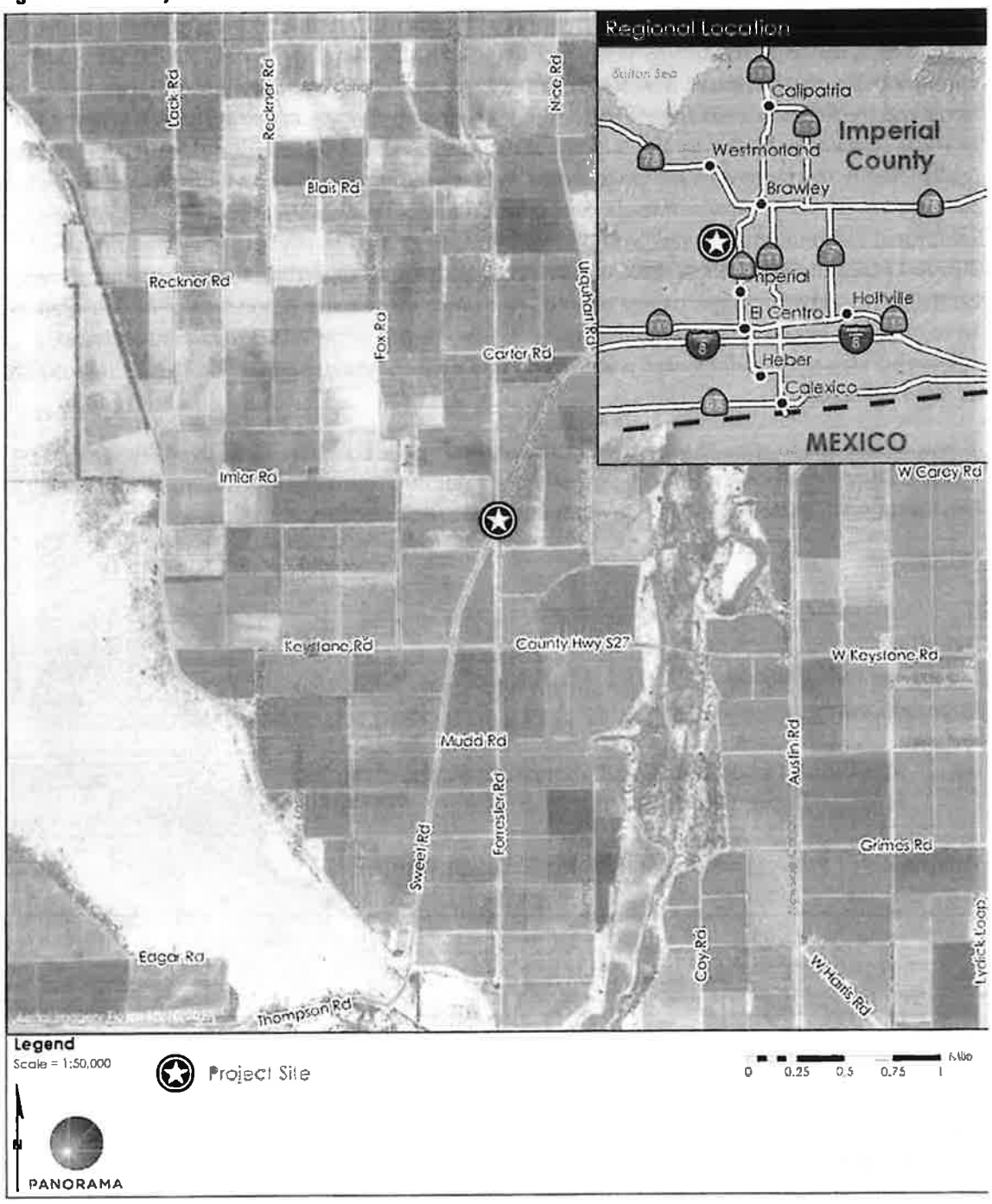

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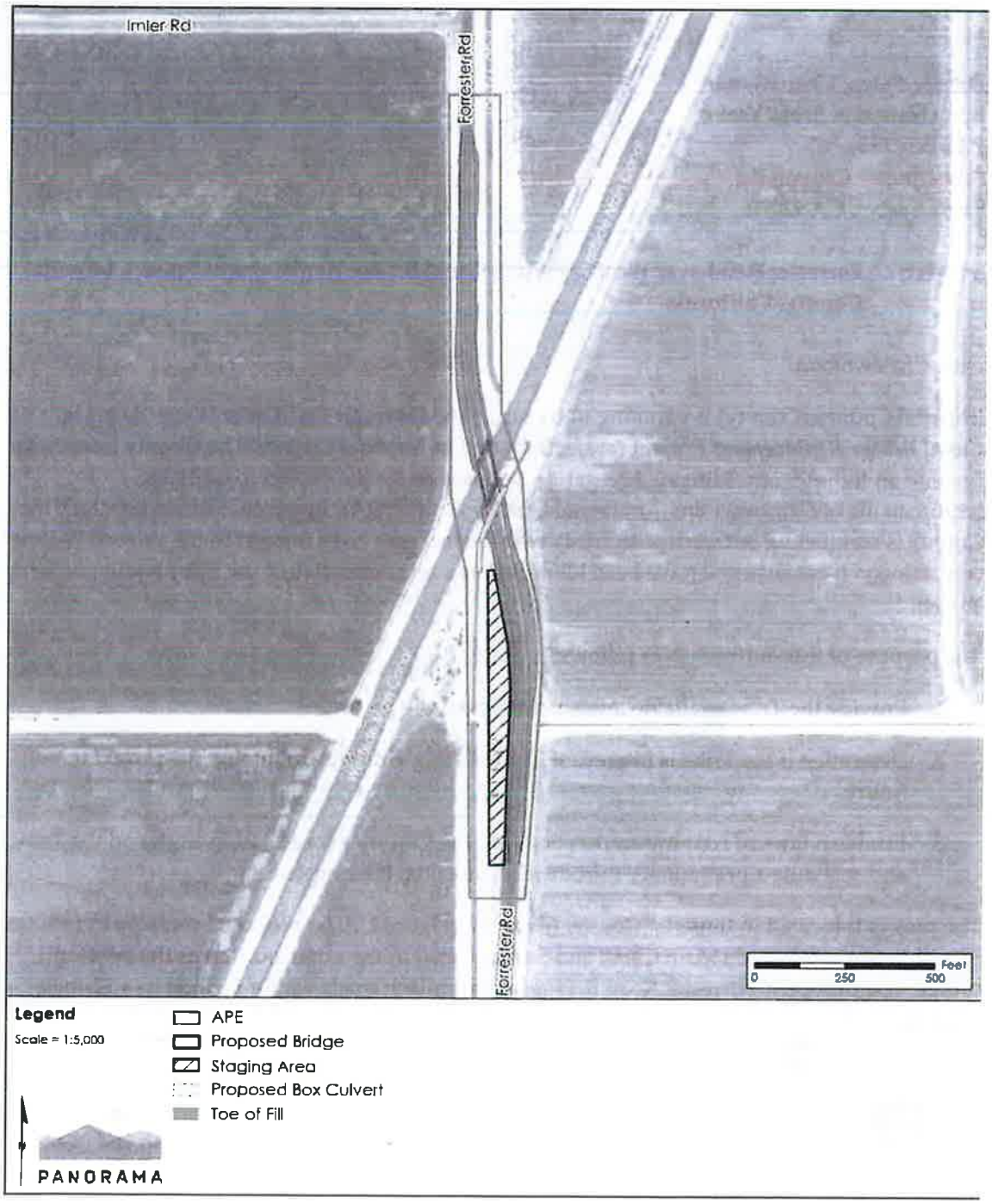

County Letterhead

January 21, 2022

Bernice Paipa, Chairwoman
Iipay Nation of Santa Ysabel
P.O. Box 130
Schoolhouse Canyon Rd
Santa Ysabel, CA 92070

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairwoman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Iipay Nation of Santa Ysabel.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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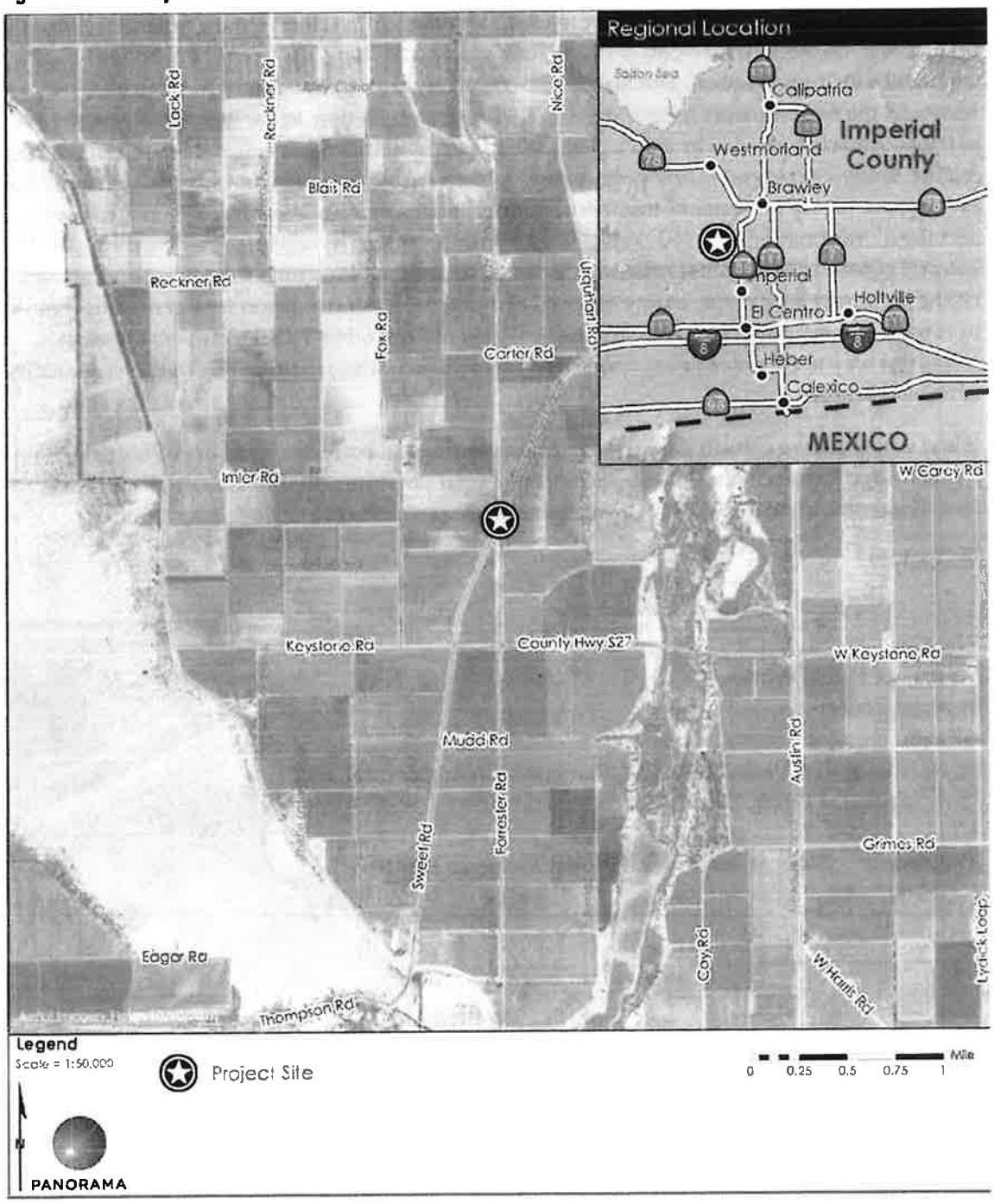

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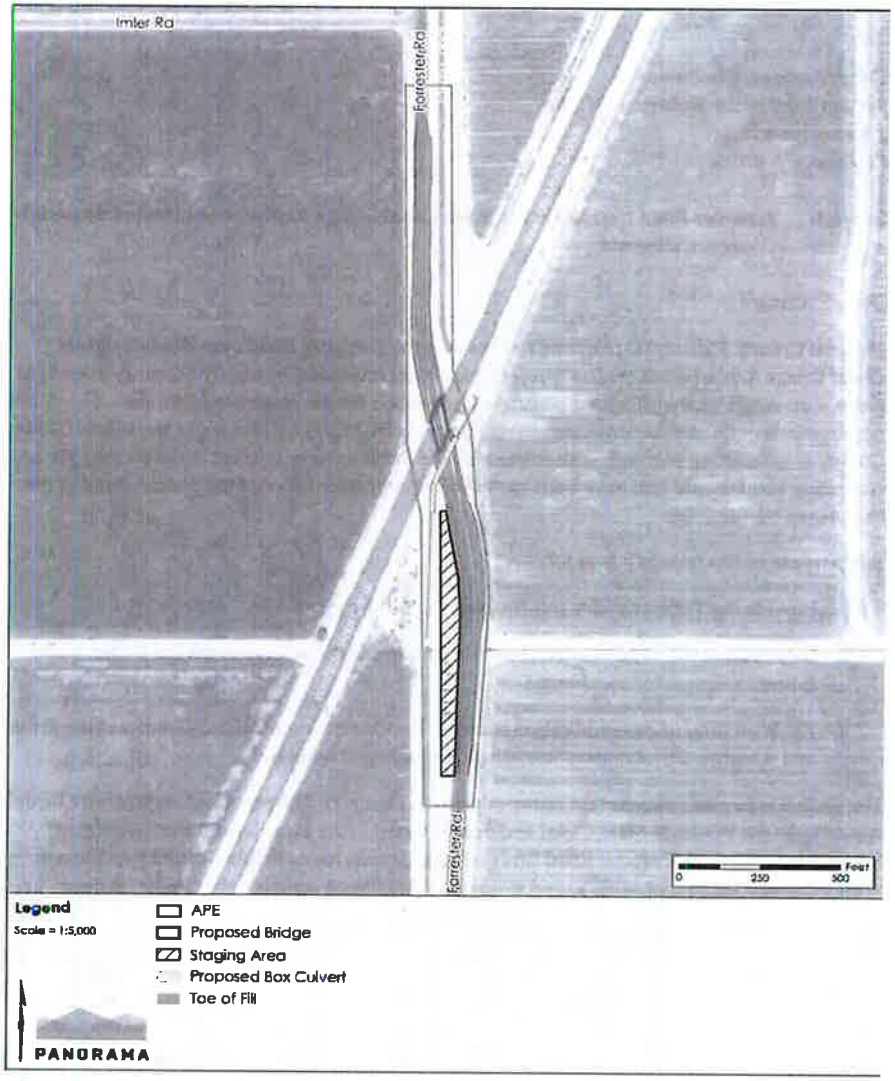

County Letterhead

January 21, 2022

Cody Martinez, Chairman
Sycuan Band of the Kumeyaay Nation
1 Kwaaypaay Court
El Cajon, CA 92019

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Sycuan Band of the Kumeyaay Nation.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

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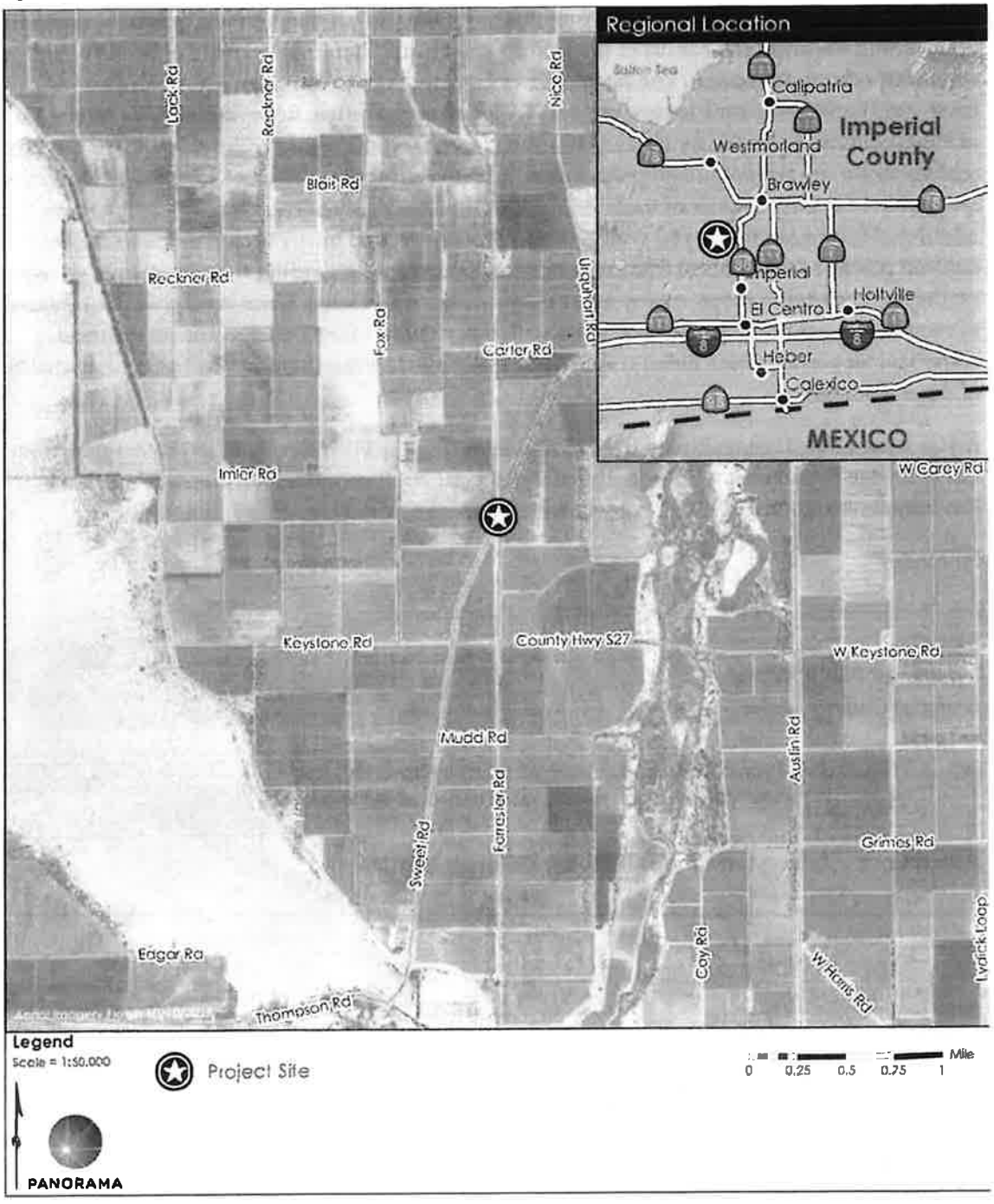

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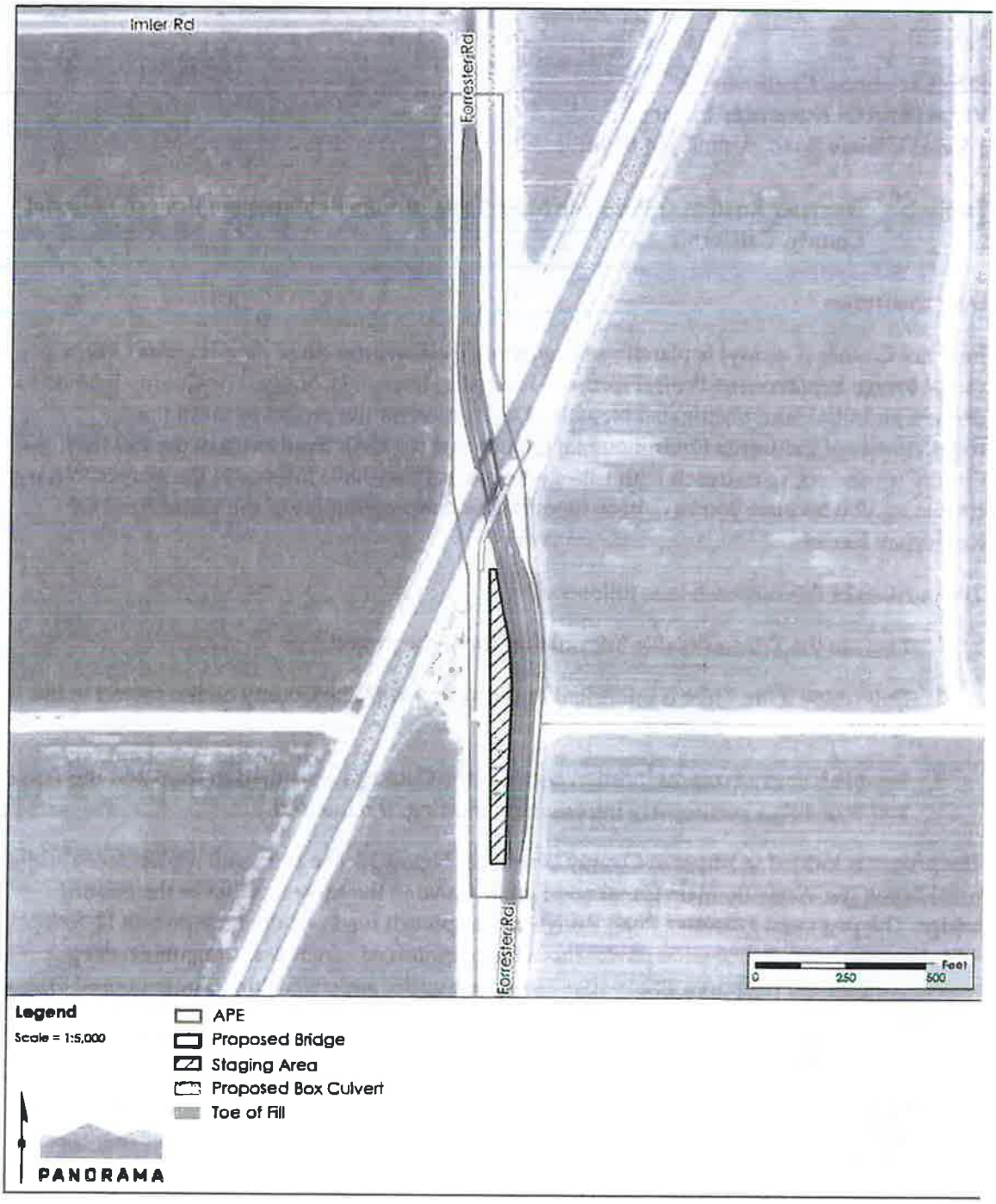

County Letterhead

January 21, 2022

John Christman, Chairman
Viejas Band Of Kumeyaay Indians
1 Veijas Grande Road, Alpine, CA 91901

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Viejas Band Of Kumeyaay Indians.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

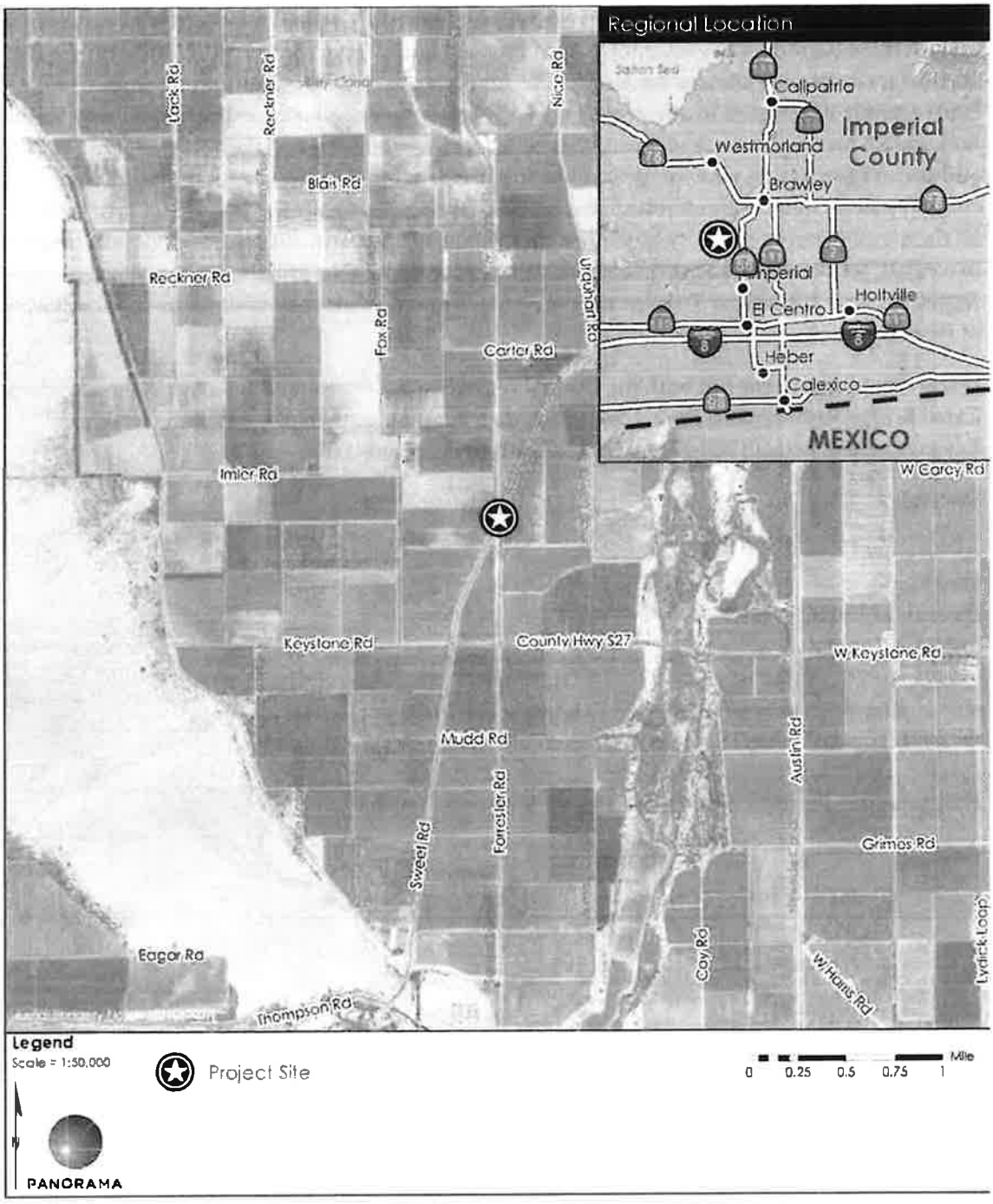
Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

Attachment: Project Location and Project Elements Figures

Figure 1: Project Location



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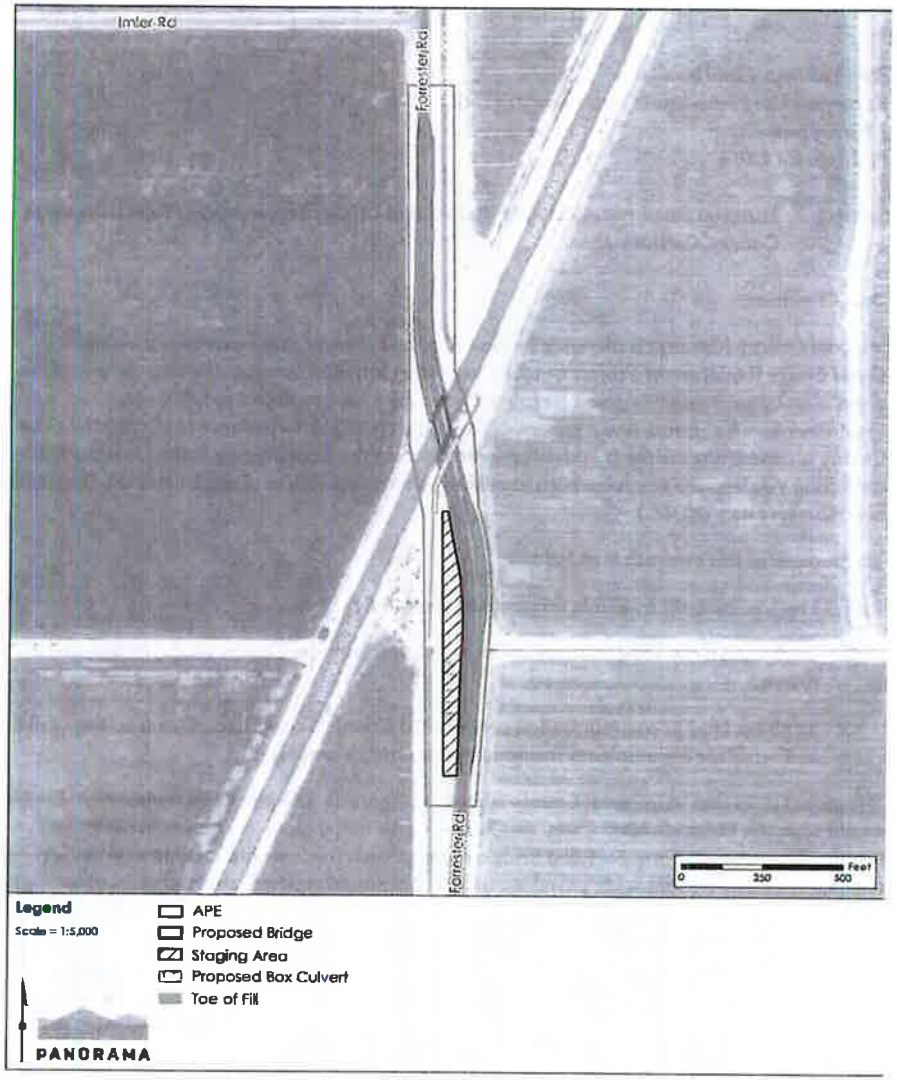

County Letterhead

January 21, 2022

Ricci LaBrake, Chairman
Kumeyaay Diegueño Land Conservancy (KDLC)
2 Kwaaypaay Court
El Cajon, Ca 92014

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Kumeyaay Diegueño Land Conservancy (KDLC).

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

The County's cultural resources consultant, ASM Affiliates, recently submitted a records search and is currently conducting the literature review for the project to determine potential cultural resources in the area. The results of the records search and literature review can be provided confidentially, upon request. The Native American Heritage Commission (NAHC) also reviewed the Sacred Lands Inventory; ASM has sent query letters to the individuals on the list of tribal contacts provided by the NAHC. We understand that other cultural resources can be inadvertently discovered in any project area. A Native American tribe or individual may be the only source for the presence of traditional cultural places or sites. We, therefore, request any additional information that you would like to provide related to any sacred or traditional cultural places, tribal cultural resources, or tribal landscapes regarding the project area shown on the accompanying maps, or any other environmental concerns. Upon receipt of your request to consult, we would be happy to discuss with you or with other Tribal members the most respectful way to consider Tribal concerns on this project, while maintaining the confidentiality of these resources.

If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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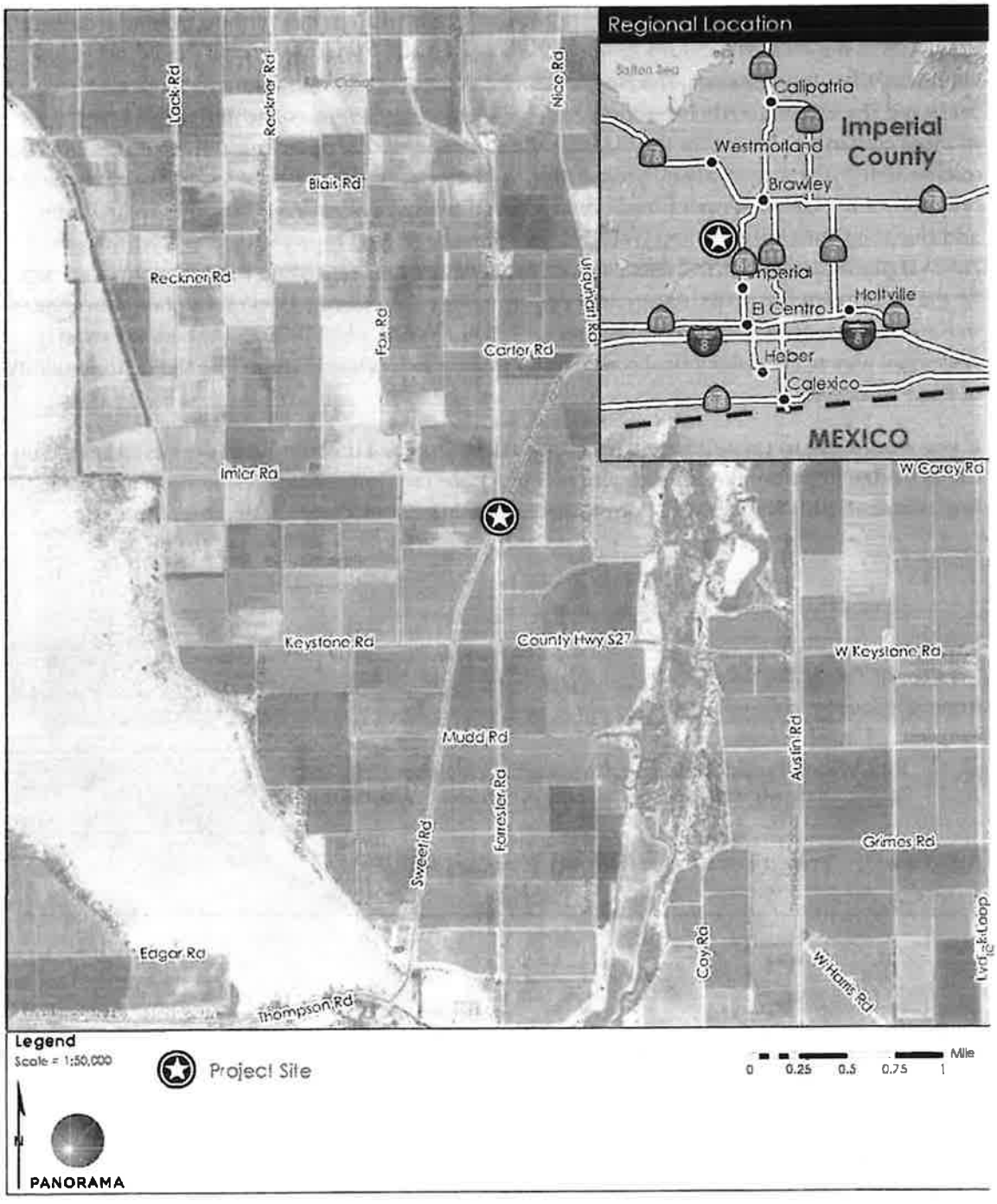

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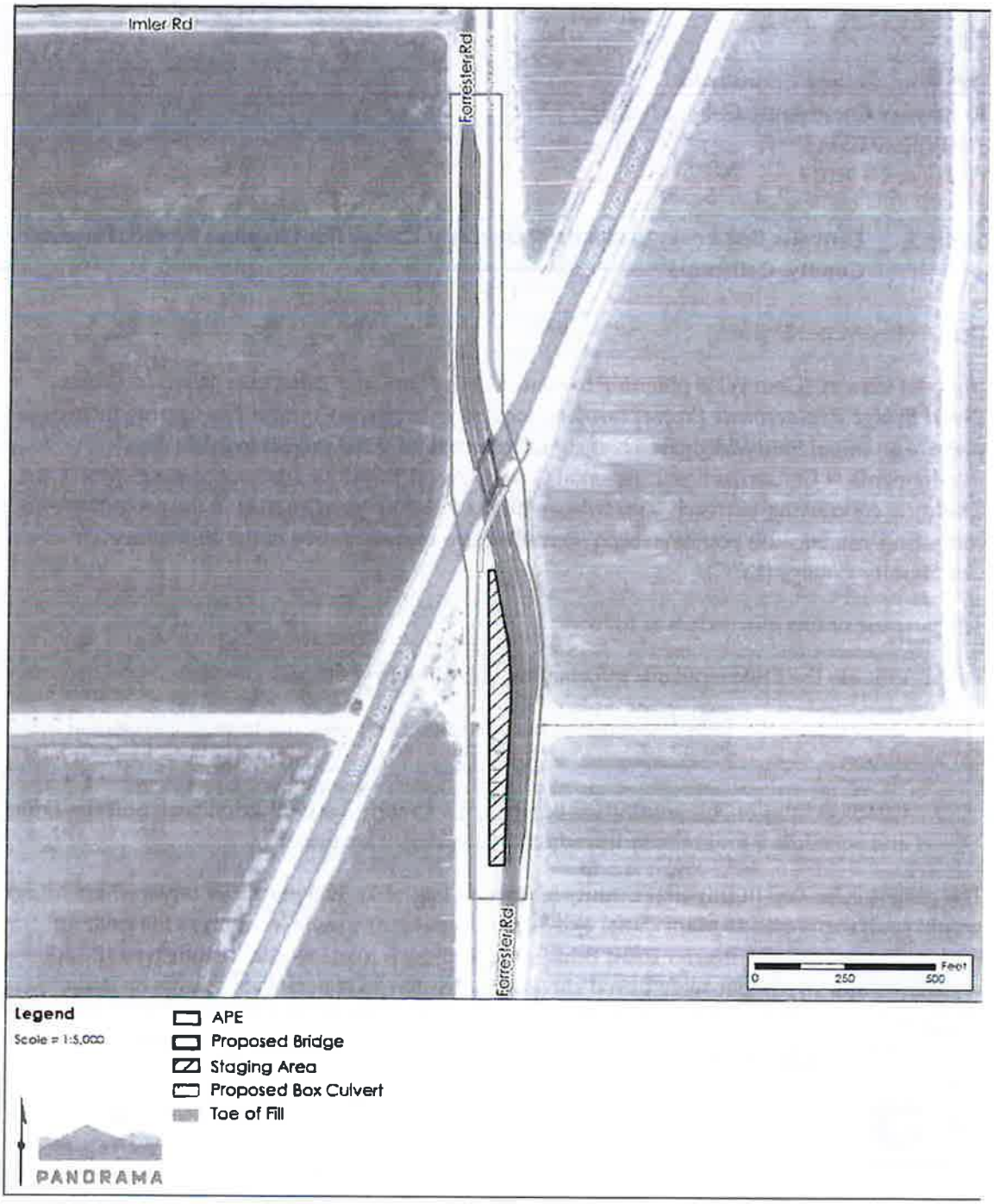

County Letterhead

January 21, 2022

Lori Ring, College Coordinator
Kumeyaay Community College (KCC)
910 Willow Glen Drive
El Cajon, Ca 92019

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear College Coordinator:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Kumeyaay Community College (KCC).

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

The project is located in Imperial County (shown in Figure 1). The proposed replacement bridge would span the Westside Main Canal and Sumac Canal in the same location as the existing bridge. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes and two 8-foot-wide paved shoulders. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required clearance between the canal and the bridge. The grade of the roadway approaches, approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge, would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. Detailed project elements are shown in Figure 2. All excavations will be within previously disturbed canal bank material.

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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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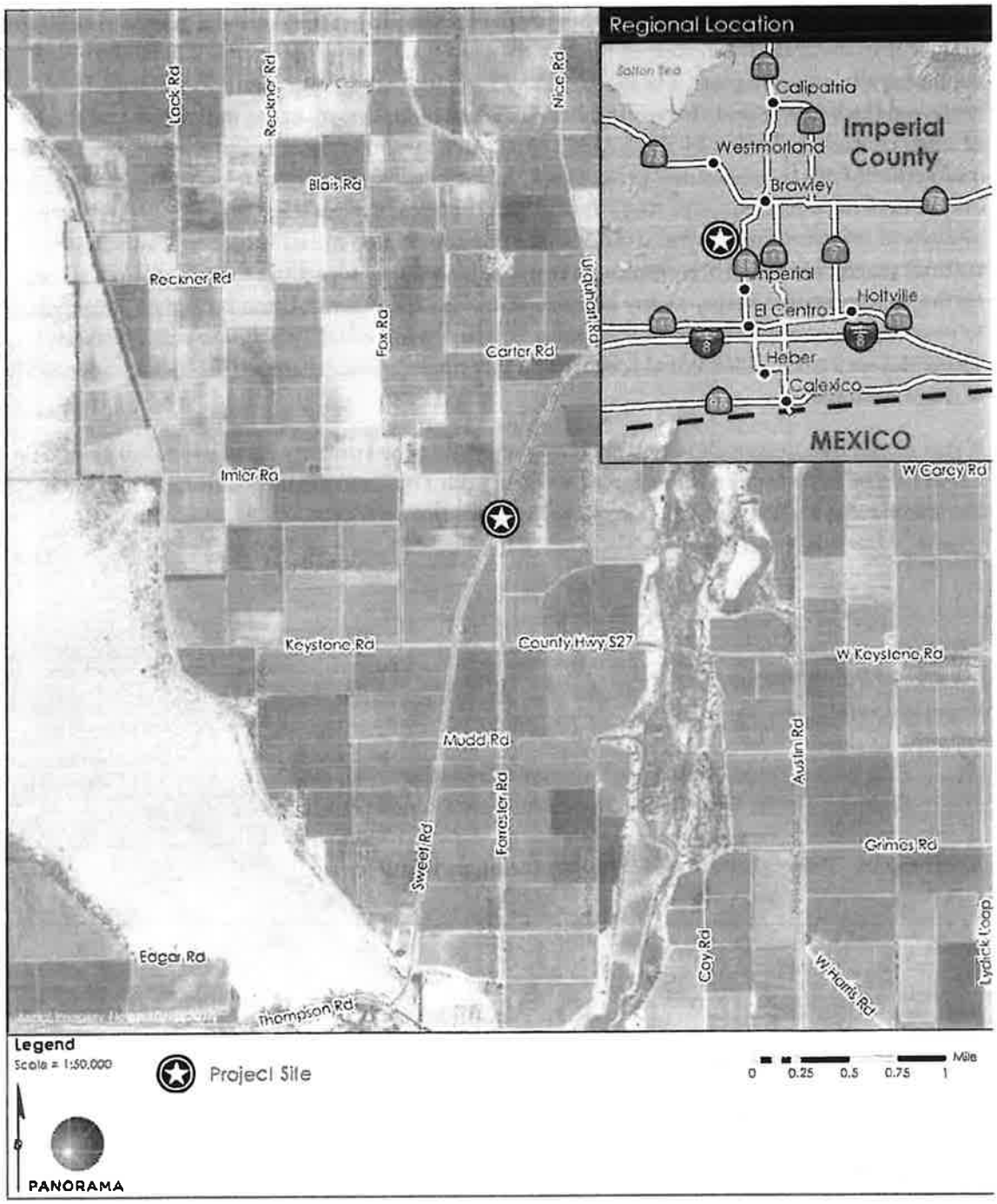

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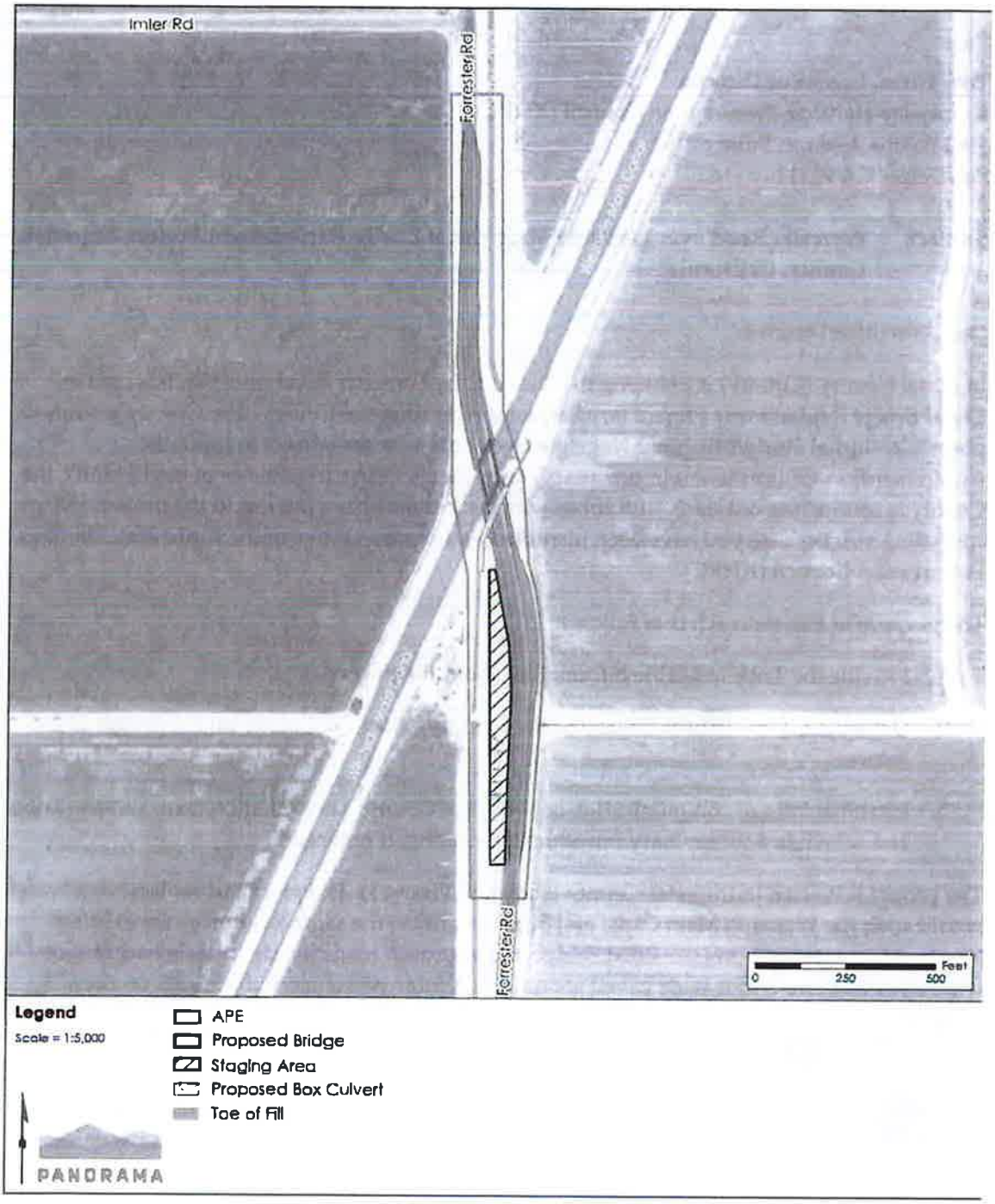

County Letterhead

January 21, 2022

Tom Holm, Executive Director
Kumeyaay Heritage Preservation Council (KHPC)
5663 Balboa Avenue, Suite 610
San Deigo, CA 92111

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Executive Director:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Kumeyaay Heritage Preservation Council (KHPC).

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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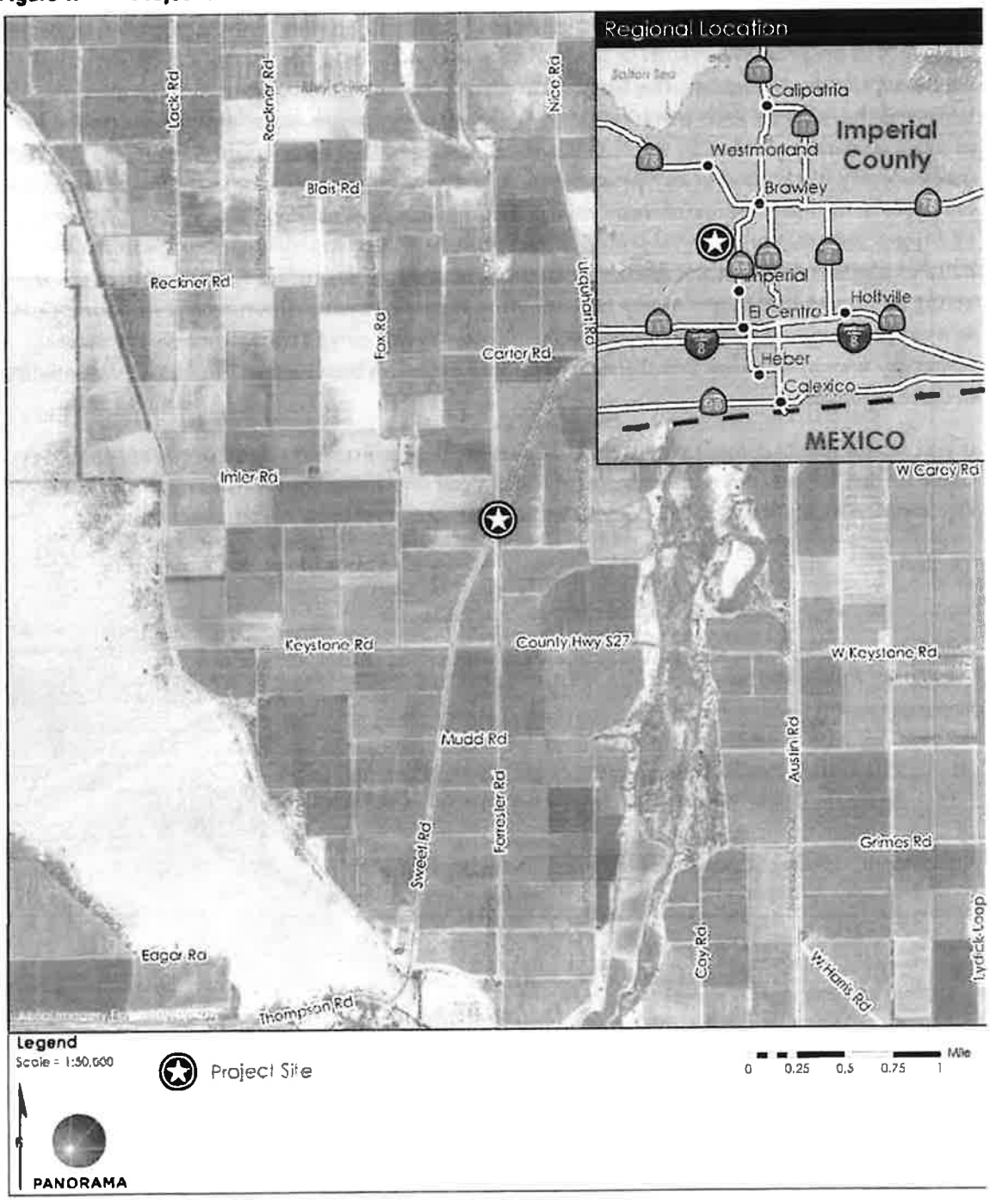

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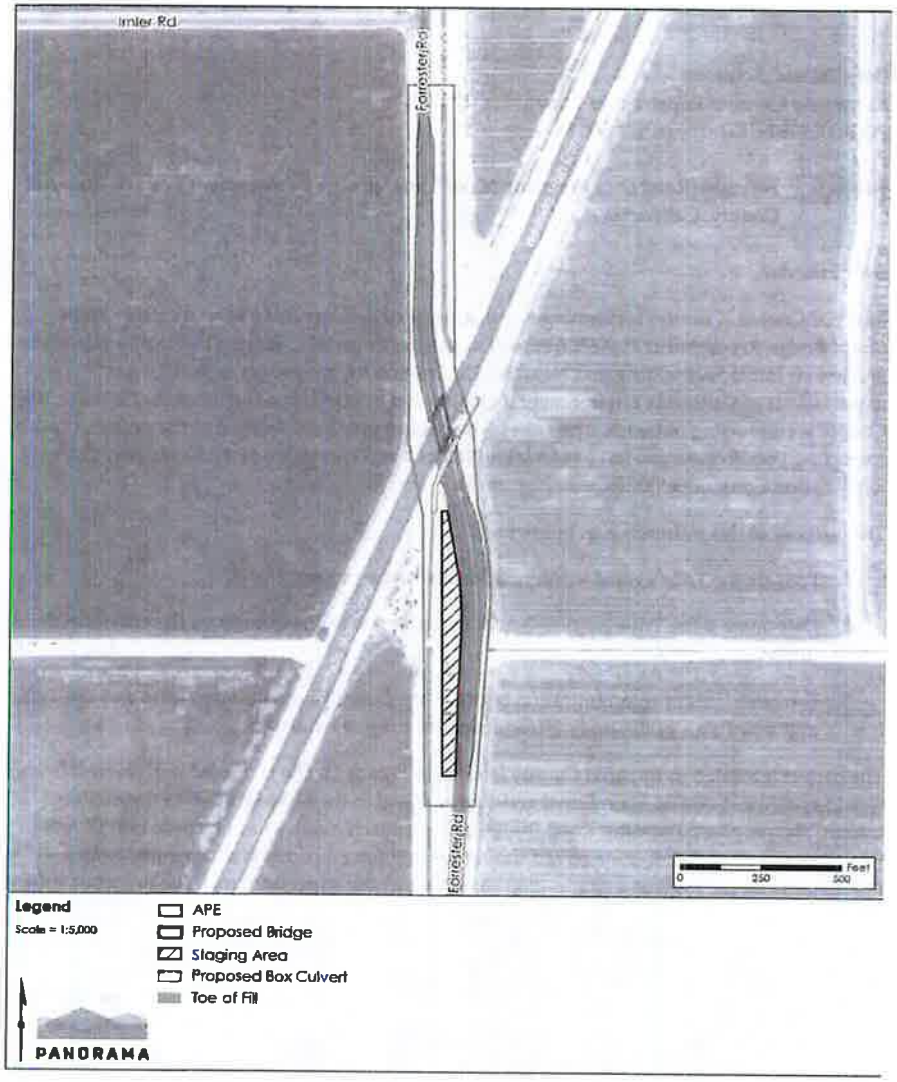

County Letterhead

January 21, 2022

Gary Ballard, Founder
Kumeyaay Cultural Repatriation Committee (KCRC)
PO BOX 81828, San Diego, CA 92138

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Founder:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Kumeyaay Cultural Repatriation Committee (KCRC).

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
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If you would like to consult with the County regarding the Forrester Road over Westside Main Canal Bridge Replacement Project, please contact our environmental consultant, Panorama Environmental, at (650) 290-7214 or rita.wilke@panoramaenv.com.

Sincerely,

John Gay
Director of Public Works
Imperial County

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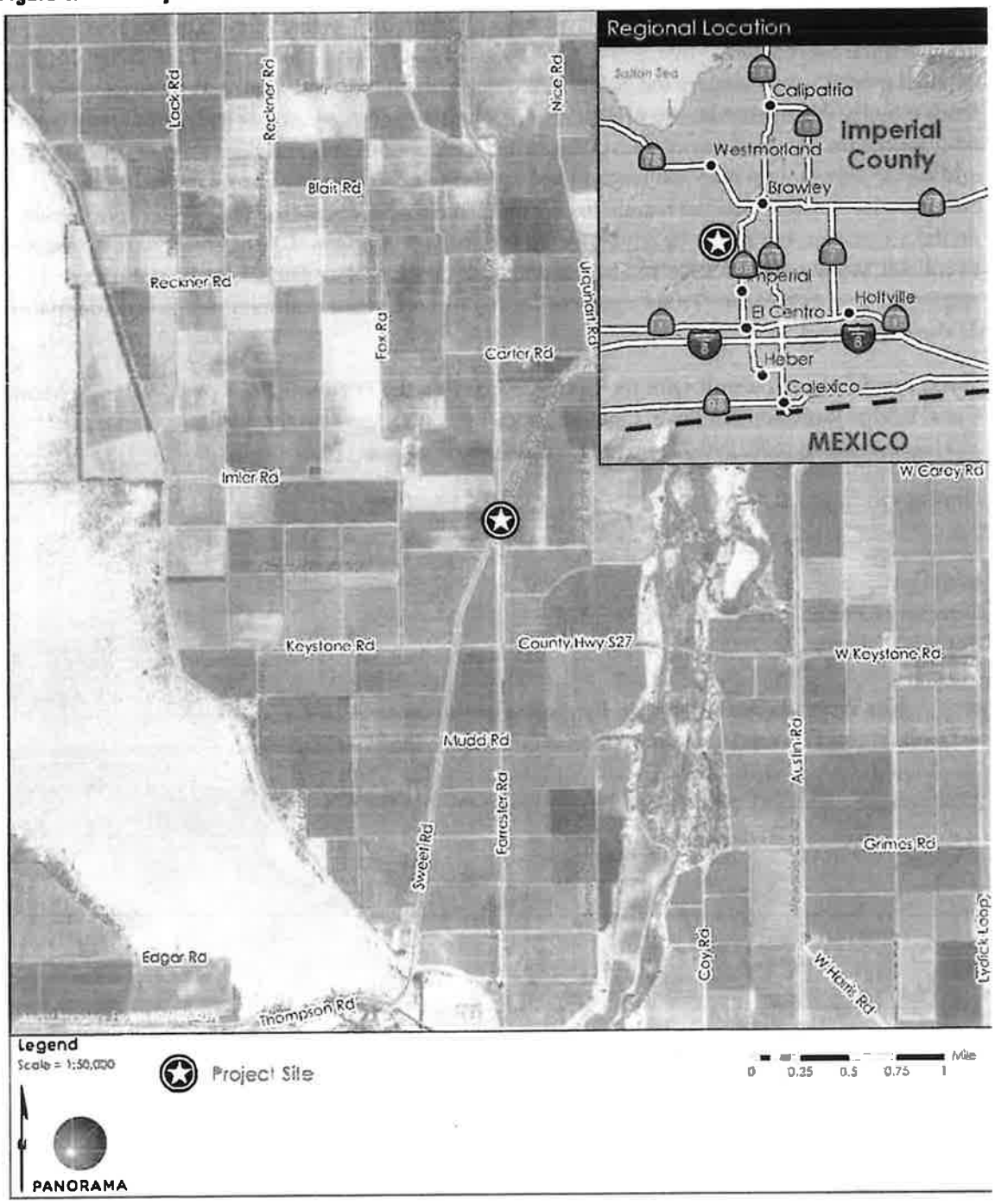

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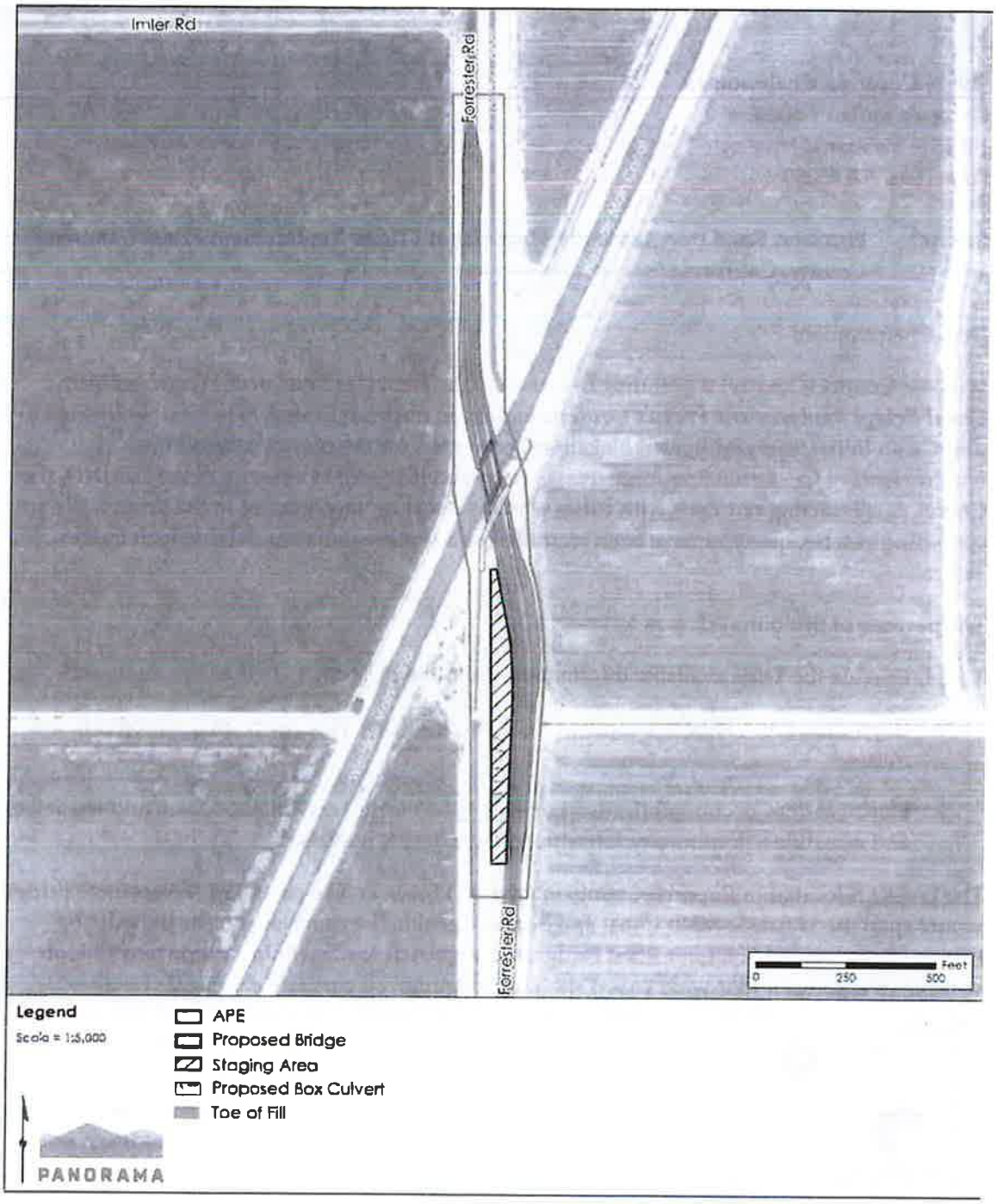

County Letterhead

January 21, 2022

Sherry Cordova, Chairwoman
Cocopah Indian Tribe
14515 S. Veterans Drive
Somerton, AZ 85350

Subject: Forrester Road over Westside Main Canal Bridge Replacement Project, Imperial County, California

Dear Chairwoman:

Imperial County (County) is planning to construct the ***Forrester Road over Westside Main Canal Bridge Replacement Project (project)*** located in Imperial County. The County intends to prepare an Initial Study/Mitigated Negative Declaration for the project to fulfill the requirements of California Environmental Quality Act (CEQA). In advance of the IS/MND, the County is conducting outreach with tribes who we feel may have interest in the project. We are contacting you because you have been identified as a representative of the Cocopah Indian Tribe.

The purpose of this outreach is as follows:

1. Provide the Tribe available information about the project.
2. Determine if the Tribe is interested in consulting with the County on the project in the future.
3. Establish lines of communication between the County's consultation team and the Tribe, and schedule a preliminary introduction meeting, if requested.

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Director of Public Works
Imperial County

cc: Rita Wilke, Project Manager, Panorama Environmental, Inc.
Shannon Davis, Director/Architectural History, ASM Affiliates

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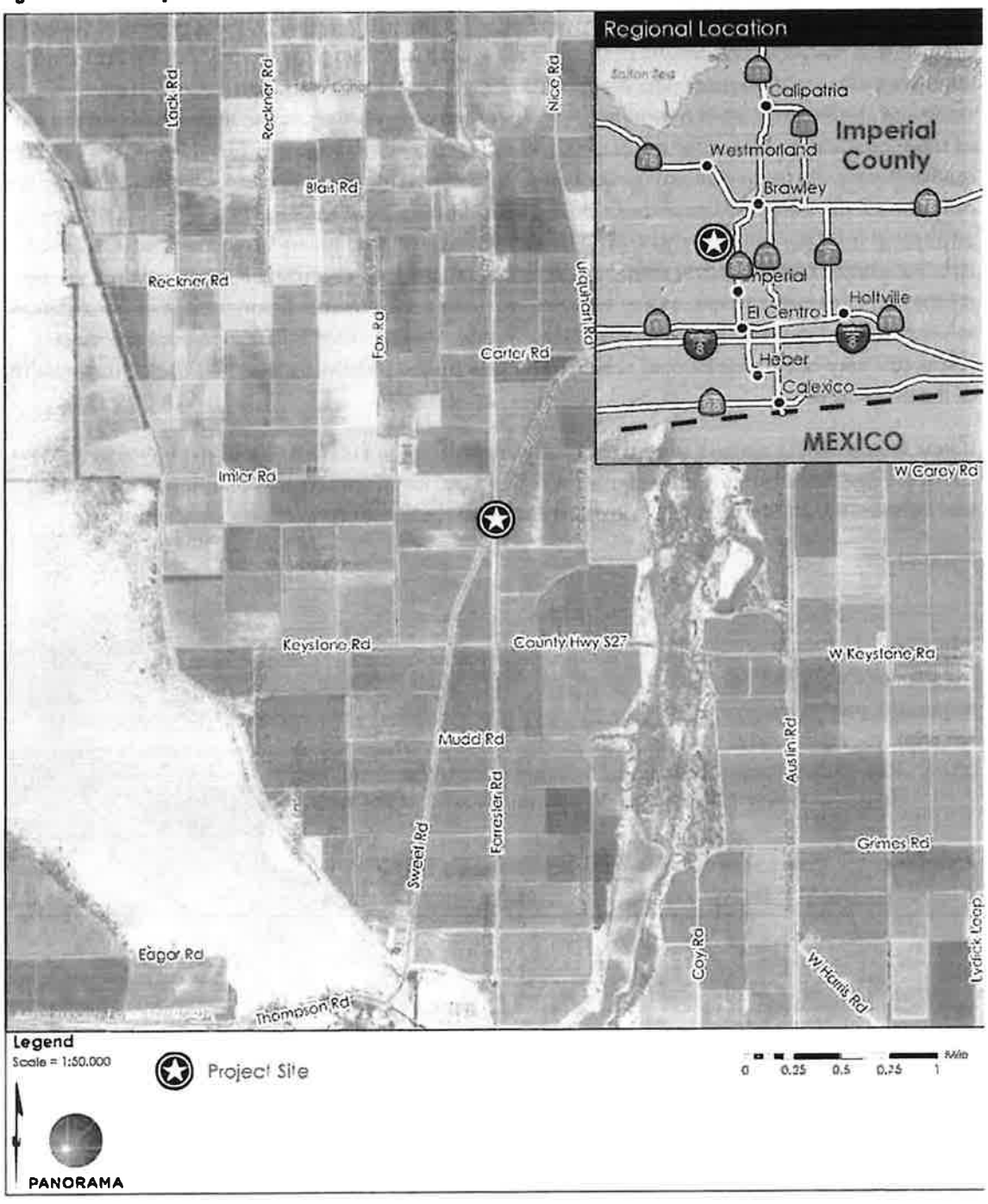

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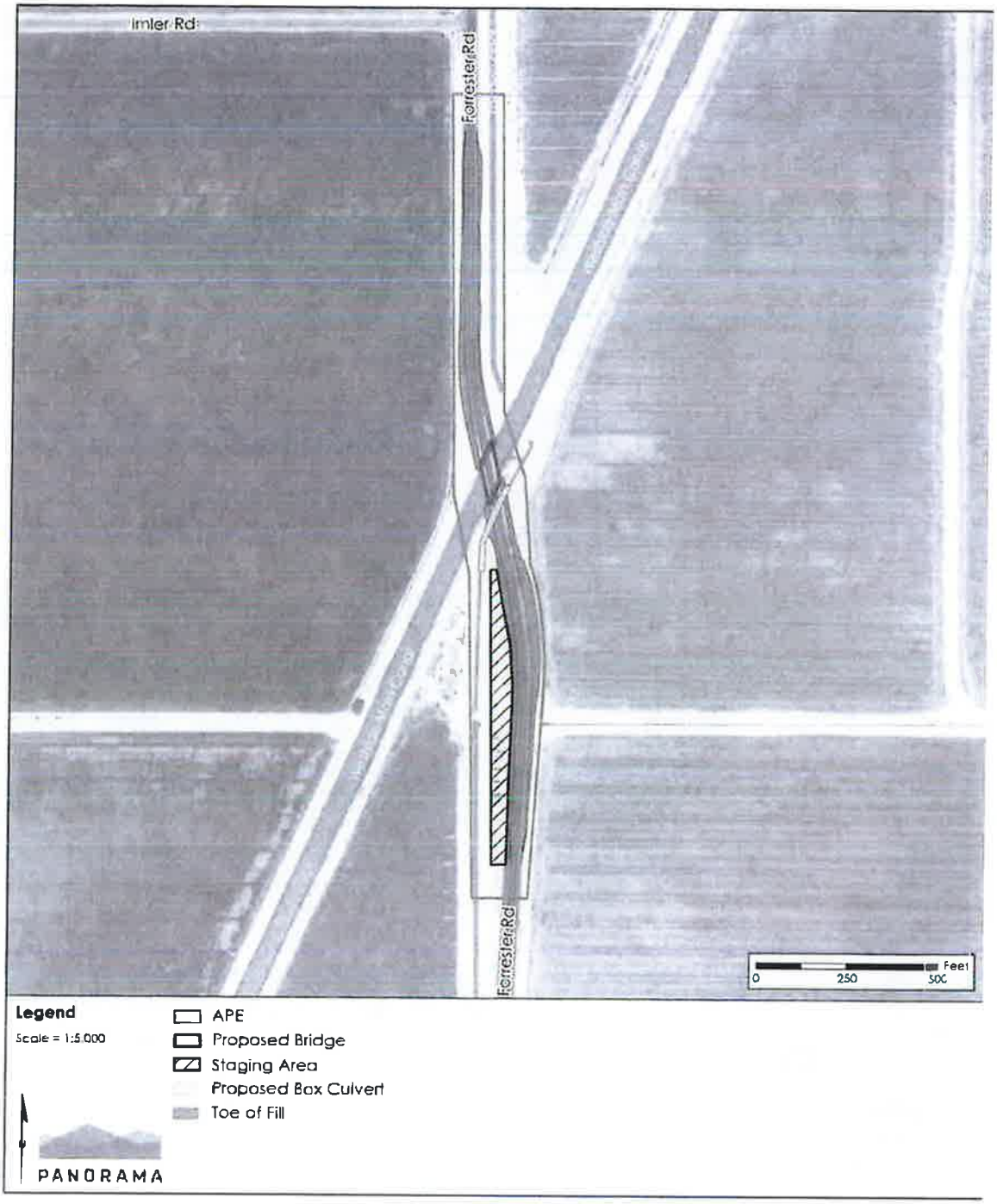


TECHNICAL STUDY - APPENDIX F

Initial Site Assessment

Initial Site Assessment

Forrester Road Over Westside Main Canal Bridge Replacement Project

Imperial County, California southwest of the City of Brawley and northwest of the City of Imperial

District 11-IMP-Forrester Road

Imperial County Bridge 58C-0014

BRLS-5958(094)

February 2022

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Prepared By: Dean Stanphill Date: February 21, 2022

Contact: Dean Stanphill
Company: Universal Engineering Sciences
Phone Number: 775-560-3911

Deputy Environmental Director: Stefan Galvez-Abadia
Phone Number: (916) 654-2852
Office Name: Environmental Division
District/Region: District 11

Chapter 1. Contents

List of Figures

List of Tables

Appendices

List of Abbreviated Terms

ACRES	Assessment, Cleanup, and Redevelopment Exchange System
AOC	Areas of Concern
AST	Above-ground Storage Tank
Amsl	Above Mean Sea Level
ASTM	American Society of Testing and Materials
Bgs	Below Ground Survey
Caltrans	State of California Department of Transportation
CERCLIS	Federal Comprehensive Emergency Response, Compensation and Liability Information System
CDL	National Clandestine Laboratory Register
County	Imperial County Public Works Department
DTSC	State of California, Department of Toxic Substances Control
DOJ	United States Department of Justice
DWR	State of California, Department of Water Resources
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
ES	ES Engineering Services, LLC
HBP	Highway Bridge Program
HMIRS	Hazardous Materials Information Reporting System
IC/EC	Institutional Controls / Environmental Controls
ISA	Initial Site Assessment
IID	Imperial Irrigation District
LBP	Lead-Based Paint
LNAPL	Light Non-Aqueous Phase Liquid
LUST	Leaking Underground Storage Tank
MGP	EDR Proprietary Manufactured Gas Plant
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
ODI	Federal EPA Open Dump Inventory
PACBM	Potential Asbestos-Containing Building Materials

PQL	Practical Quantitation Limit
RECs	Recognized Environmental Conditions
RCRA	Resource Conservation and Recovery Act
SCS	Soil Conservation Service
STLC	Soluble Threshold Limit Concentration
SVOCs	Semi-Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TSD	Treat, Store, Dispose List
TTLC	Total Threshold Limit Concentration
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Condition
XRF	X-Ray Fluorescence

Chapter 1. Introduction

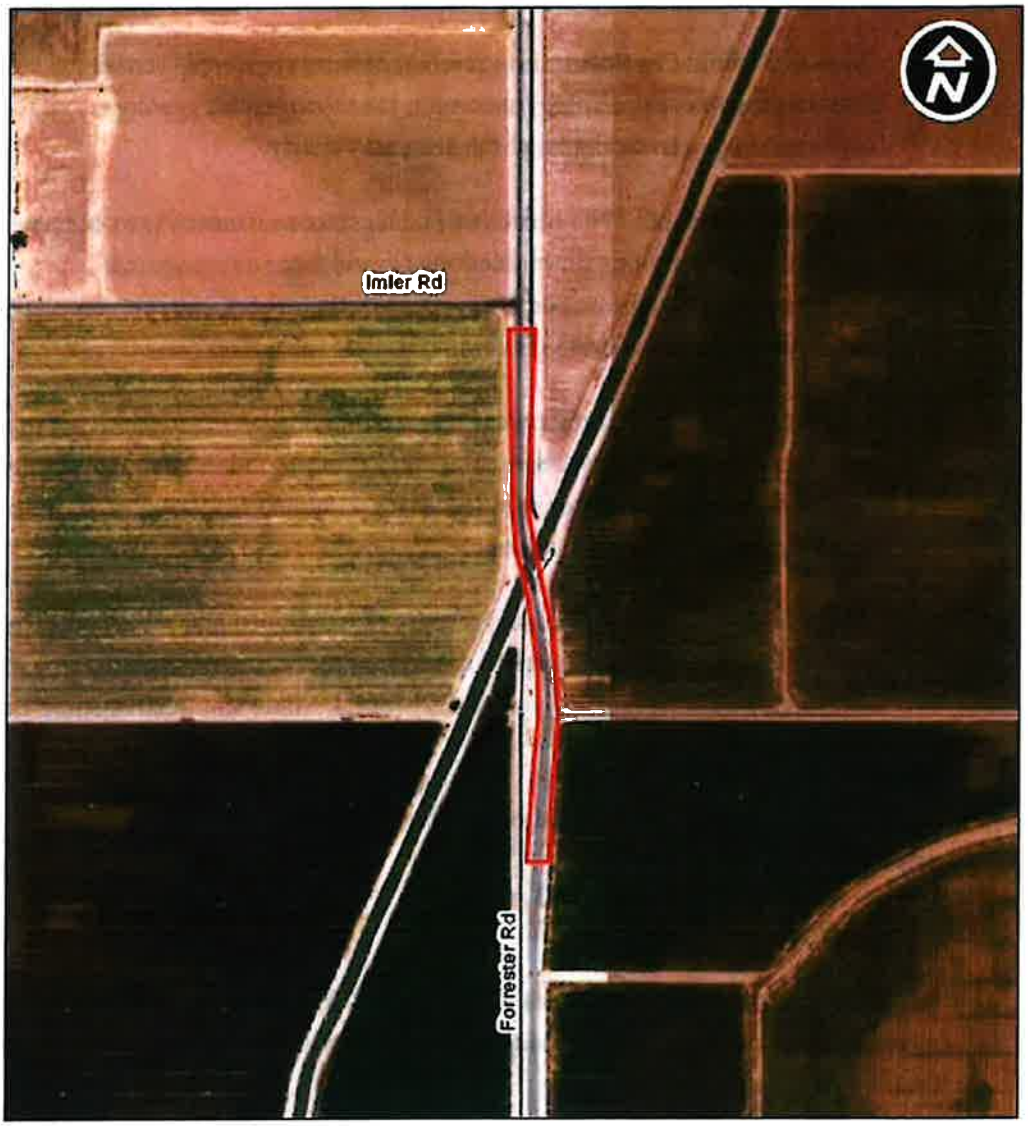
This report presents the results of an Initial Site Assessment (ISA) for the Forrester Road Over Westside Main Canal Bridge Replacement Project (**Figure 1—Site Location Map**). The project includes the demolition and reconstruction of the Forrester Road Bridge and associated approaches. Work performed also included field sampling and laboratory testing of material to be disturbed during demolition.

- The completed ISA Checklist is included in **Appendix A—Preparation Guidelines for Initial Site Assessment (ISA) Checklist for Hazardous Waste.**

1.1. Purpose

Universal Engineering Sciences (UES) has prepared this ISA to evaluate the presence of contaminated properties within and adjacent to the defined Area of Potential Impact (API) as shown in Figure 1 (Project Site). Field sampling and laboratory testing was also performed to evaluate potential hazardous materials that might impact people or the environment during construction of the new bridge. Samples were obtained of materials to be disturbed during demolition of the existing bridge.

This ISA was performed in general accordance with the Caltrans Initial Site Assessment Guidance Document and project specific scoping. The primary goal of the ISA was to determine the potential presence of recognized environmental conditions as defined by the American Society of Testing and Materials (ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process). This ASTM standard defines recognized environmental conditions as the "presence or likely presence of any hazardous substance or petroleum products in or on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment". As further defined, "De minimus" conditions are not recognized environmental conditions". Other definitions include "Historical Environmental Conditions", which are defined as environmental conditions that in the past would have been considered a recognized environmental condition, but that may or may not be considered a recognized environmental condition currently. Also defined is "business environmental risk," which is a risk that can have a material environmental or environmentally driven impact on the development of commercial real estate.



Legend

Approx. Site Boundary

Feet
0 245 490 980 1,470 1,960

The presented layers were obtained from various sources including ESRI, USGS, USDA, CCBO GISMO, CCFCD, GIS User Community among others. The GIS information is presented for reference only. No warranties, either expressed or implied, are intended or made. If you have any questions regarding this information, please contact NOVA.

UNIVERSAL ENGINEERING SCIENCES	PROJECT: **Forrester Road Bridge APNs:040-170-004 and -008 Phase I ESA**	**SITE MAP**	
	CLIENT: **Panorama Environmental, INC**	PROJECT NO: **4240.2100010.0000**	FIGURE NO: **2**

The main components of this report, as specified by the Caltrans ISA Guidance and ASTM Standards, include:

- Physical Setting: Physical setting references were reviewed (confirmed by field observations where possible) concerning the topographic, geologic, and hydrogeologic characteristics of the site and vicinity.

- Site Reconnaissance: The objective of a site reconnaissance is to observe conditions and activities for indications of evidence of recognized environmental conditions. For the purpose of this report, our site reconnaissance was conducted as a separate task from the field sampling.

- Site History: Historical references were reviewed in order to identify if past uses have led to recognized environmental conditions in connection with the site. Historical sources reviewed included aerial photographs, topographic maps, and an interview with County Personnel.

- Records Review: Environmental records were obtained and reviewed to help identify recognized environmental conditions that could potentially affect the site. Reviewed were publicly available Federal, State, and local agency records as described herein.

Field sampling of materials to be disturbed during demolition were also performed as described herein.

1.2. Methodology

To evaluate Recognized Environmental Conditions (RECs) associated with the site, the ISA generally includes those items mentioned in Section 1.1. These scope items are further described as follows:

- Coordinated the site assessment through Panorama Environmental.

- Conducted a project site reconnaissance of the existing bridge and surrounding properties. The purpose of the reconnaissance was to document areas of potential environmental concern.

- Obtained samples of material to be disturbed during bridge demolition. Samples were obtained and shipped under strict chain of custody procedures to a State of California Certified Laboratory or National Voluntary Accreditation Program Laboratory, as applicable.

- Conducted an environmental database search for the Project Site and properties within a specified radius of the project site as shown on Table 2 presented in a subsequent section of this report. The purpose of this review was to document the quantity and/or general nature of sites with unauthorized releases of hazardous materials or wastes to soil and/or groundwater in the vicinity of the Project Site, and properties within the Project Site radius that are permitted to use, store, or dispose of hazardous materials or wastes.

- Reviewed physical setting information.

- Reviewed historical aerial photographs, historical topographic maps, and city directories in order to document, in general, areas within the vicinity of the Project Site that may have been historically developed with uses indicative of potential environmental concerns.

- Prepared this ISA report using the test results and in general accordance with California Department of Conservation guidelines.

1.3. General Limitations

Opinions given in this ISA report relative to the potential for hazardous materials or petroleum hydrocarbons to exist on the Project Site are based on the information obtained from the site reconnaissance and from other information sources as described herein. Certain indicators of the presence of hazardous materials or petroleum hydrocarbons are not readily observable during the site reconnaissance may become observable at a later date. UES has also reviewed public information sources providing complete and accurate information without independent verification. The finding and conclusions in the report are based solely on the limited scope of an ISA, including information from sources that UES believes to be reliable. Because the scope of an ISA is necessarily limited and based in part on third party sources and significant assumptions, UES does not warrant that the Project Site does not include hazardous materials or petroleum hydrocarbon releases.

Chapter 2. Physical Setting

This section of the ISA presents a brief description of the physical setting of the Project Site and the surrounding property, including a description of the existing bridge, description of the new bridge, and salient aspects of topography, geology, and hydrogeology.

2.1. Site Location

The existing Forrester Road Bridge is located in Imperial County, California (**Figure 2—Site Map**). The Project Site is located within the northwest quarter of the United Sates Geologic Survey (USGS) 7.5 minute, 1:24,000-scale, Bonds Corner Quadrangle, in Section 22, Township 14 South, Range 13 East (S 22, T 14S, R 13E) (USGS, 2012). The Project Site encompasses approximately 4.1 acres.

The existing bridge is located on Forrester Road in Imperial County, approximately 10 miles north of Interstate 8, and 3.3 miles west of State Route 86. The bridge spans the Westside Main Canal, approximately 6,330 feet north of the intersection of Forrester Road with W Keystone Road. The project site is surrounded by agricultural fields. The Forrester Road bridge approaches are bordered by irrigation canals along the western and eastern sides. The elevation of the site is approximately 70 feet below sea level.

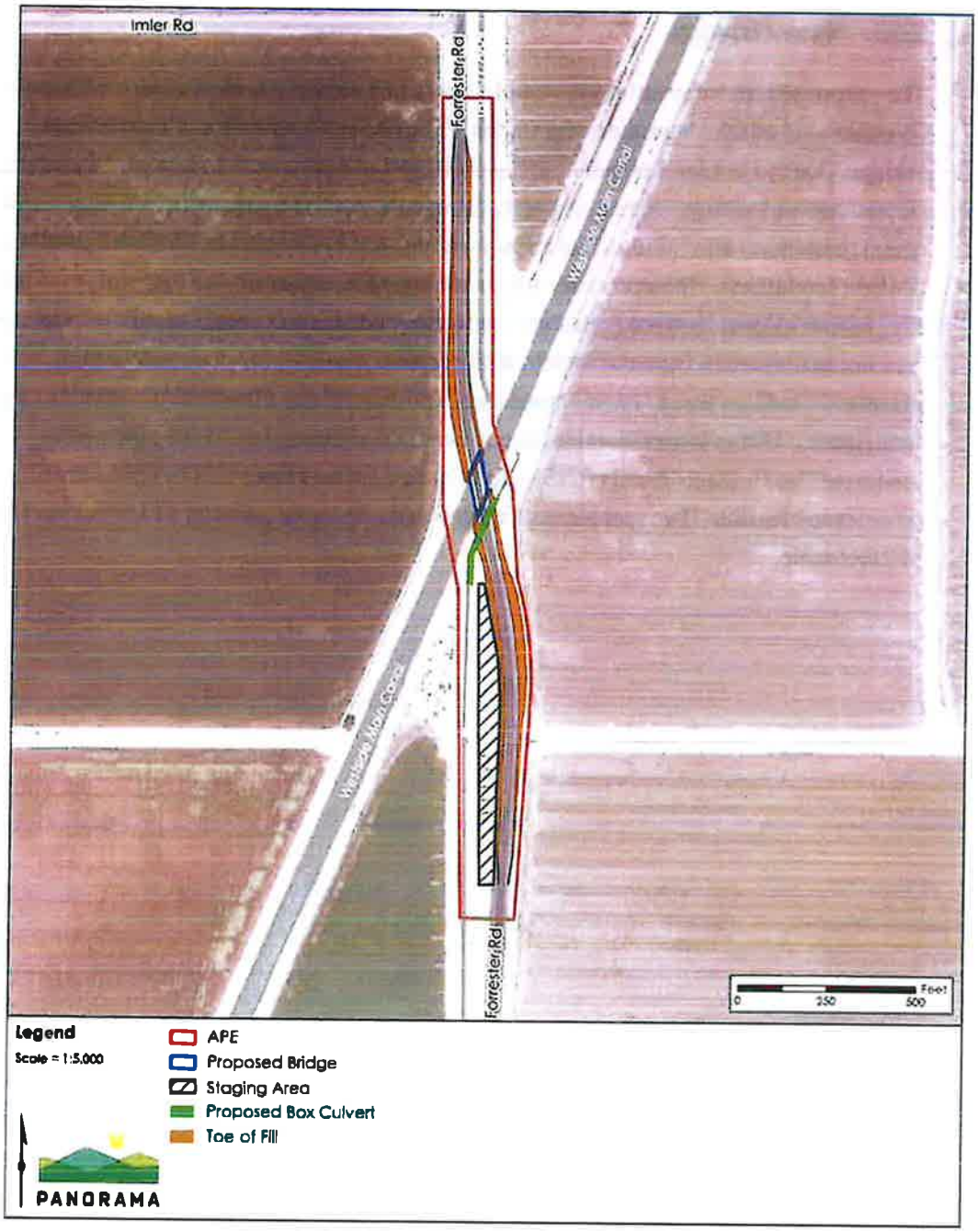
For the purposes of this ISA, the term Project Site refers to the API, which is approximatcly 2,200 feet from north to south and is approximately 150 feet from east to west of the bridge (see **Figure 2**) and is inclusivc of thc bridge. The County maintains the bridge and roadway, as such, they have a prescriptive easement to use the roadway and bridge. For the purpose of our investigation, the County is considered the Owner.

2.2. Existing Bridge

The existing bridge and abutments will be demolished and replaced with a new bridge. The existing concrete and steel structure was constructed in 1950 and is in poor condition and is classified as Structurally Deficient. The bridge is skewed by 55 degrees due to the alignment of Forrester Road crossing over the Westside Main Canal. The length of the bridge is approximately 115 feet with a width of approximately 28 feet. The existing bridge is supported by reinforced concrete pile cap bents founded on cast-in-steel shell pile extensions. The existing bridge and piles would be removed.

2.3. New Bridge

The proposed replacement bridge would consist of a simple span structure with supports on either side of the Westside Main Canal. The preferred structure is a simple-span bridge. Due to the high potential for liquefaction and anticipated failure of the channel slopes, spread footings are not a suitable foundation for the replacement structure. Of the deep foundation alternatives, site soils are anticipated to be suitable for both driven and drilled foundations. However, due to the anticipated liquefaction and lateral spreading of the channel slopes, battered piles are not recommended, and vertical small diameter piles are not anticipated to have sufficient displacement capacity to accommodate the kinematic loading due to lateral spreading. Therefore, larger diameter foundations are anticipated. Of the larger diameter deep foundation alternatives, driven pipe piles, concrete Cast In-Steel-Shells (CISS) and Cast-In-Drilled-Hole (CIDH) piles are all considered feasible. The replacement bridge would be approximately 115 feet long and 44 feet wide.



2.4. Topography

As part of the investigation, UES reviewed historical topographic maps of the area published by the United States Geologic Survey. The maps were provided by EDR. The table below provides the name of the quadrangle, scale, and date of each map.

Table 1 Historic Topographic Quadrangles Forrester Road Bridge, Brawley, California

Target Quadrangle	Scale	Date
Brawley 15-minute	1:50,000	1948
Brawley NW 7.5-minute	1:24,500	1957
Brawley NW 7.5-minute	1:24,000	1979
Brawley NW 7.5-minute	1:24,000	2012

The 1948 Brawley 15-minute Quadrangle shows the Project Site as a developed road with the Westside Main Canal adjoining to the east and west and underneath Forrester Road. Sumac Lateral and Tokay Canal are adjoining the Project Site to the west and east, respectively. A structure is adjoining the Project Site to the west. Imler Road is a developed road adjoining the Project Site to the northwest. Limited development is located scattered throughout the vicinity. Surface drainage appears to be generally flat with likely drainage to the east towards the New River.

The 1957 map is similar to the 1948 map. Further development is visible, including additional roads and structures throughout the vicinity.

The 1979 map is similar to the 1957 map, except that the structure previously visible adjoining the Project Site to the west is no longer present. Additional canals, drains, and roads are also shown.

The 2012 map is similar to the 1979 map with some additional drains and roads having been established during the interval.

A copy of the EDR Historical Topographic Map Report is included in **Appendix B—EDR Topographic Maps.**

2.5. Geology

The Project Site is located within the Salton Trough. The Salton Trough is a graben which is defined as a depressed block of land bounded on opposite sides by roughly parallel faults. Through movement of the faults, the strip of land sinks in a process called subsidence. In the case of the Salton Trough, the graben has been filled with sediments as

it subsided. Although not restricted to them, grabens are characteristic of rift valleys (Alles, 2011).

The Salton Trough is at the northern end of a much larger rift valley formed by spreading and subsidence that runs the length of the Gulf of California, known as the Colorado River delta. The Colorado River delta is quite extensive. It covers 3,325 square miles (8,612 square kilometers) (Sykes, 1937), and is up to 3.5 miles (5.6 km) deep (Jenning and Thompson, 1986), containing over 10,000 cubic miles of the Colorado River's sediments from the last 2 to 3 million years. The sediments, that were deposited by the river more than 2 to 3 million years ago, have shifted northwestward by movement along the San Andreas and related faults (Winker & Kidwell, 1986).

The San Andreas, Algodones, and Imperial faults are present within the basin, but data on whether these faults control groundwater movement is lacking (Loeltz and others 1975). The San Andreas, Imperial and Brawley faults are known active faults with Recent-age Holocene surface ruptures.

The closest active fault to the Project Site is the Imperial Fault located approximately 4.5 miles north of the Project Site. In accordance with data presented by the Southern California Earthquake Data Center, the El Centro / Imperial Valley Earthquake of May 18, 1940 occurred on the Imperial Fault and exhibited a moment magnitude of 6.9 and a maximum perceived intensity of X (Extreme) on the Mercalli intensity scale. The earthquake ruptured the ground approximately 5 miles south of the Project Site (Hart, 1989). The total length of rupture was reported to be 25 miles with a maximum offset of 15 feet.

2.6. Soil Characteristics

Maps provided by EDR (based on data from the Unites States Department of Agriculture's (USDA) Soil Conservation Service), indicate that the soil at the Project Site is characterized by very fine sandy loam, silty clay loam, loamy very fine sand, and silty clay.

This soil has formed by both eolian and alluvial processes. The landform is relatively flat across the Imperial Trough. Overall, soils at the Project Site are well drained.

2.7. Hydrogeology

A search was made of the State of California Department of Water Resources (DWR) Water Data Library and three wells were identified based on the location of the Project Site. Data provided indicated that the three wells are within 5 miles of the Project Site. In all three instances, the well data was incomplete and no groundwater measurements were made and/or recorded.

The underlying hydrogeology was discussed by Loeltz, et. al., 1975. Boring logs from several groundwater wells within a 10-mile radius shows that the underlying sediments are intervals of sand and silt with traces of fine gravel alternating with clay and silty clay. The sand intervals are likely from sediment inflow into the Imperial Valley from the Colorado River. The clay intervals are likely from both marine and lacustrine deposits.

The State of California, Department of Water Resources (DWR, 2004) shows that the Imperial Valley has two major aquifers, separated at depth by a semi- permeable aquitard that averages 60 feet thick and reaches a maximum thickness of 280 feet. The aquifers consist mostly of alluvial deposits of late Tertiary and Quaternary age. Average thickness of the upper aquifer is 200 feet with a maximum thickness of 450 feet. The lower aquifer averages 380 feet thick with a maximum thickness of 1,500 feet. As much as 80 feet of fine-grained, low permeability prehistoric lake deposits have accumulated on the nearly flat valley floor and cause locally confined aquifer conditions (Montgomery Watson 1995).

Reference is made to "Geohydrologic Reconnaissance of the Imperial Valley, California, USGS Research Paper 486-K. As indicated in this report, groundwater elevations are heavily influenced by recharge of the Colorado River and leakage from the many canals in the Salton Trough. In many areas of the central portion of the Imperial Valley, the groundwater level is near the surface. Within this report is well data within Section 35, Township 16 S and Range 16 East. Groundwater elevations are reported as flowing (artesian conditions with no static level determined) to 11.9 feet below the ground surface.

Chapter 3. Records Review

3.1. Database Search

Federal, state, and county agency records were reviewed to identify known or reported spills and leaks, or generation of hazardous substances within the ASTM-specified search distances from the Project Site identified in **Table 2**.

Table 2 Environmental Record Sources and Search Radii Forrester Road Bridge Brawley, California

Environmental Record Source	Search Radius (miles) from Project Site
Federal National Priority List (NPL) Site List	1.00
Federal NPL Delisted Sites List	0.50
Federal CERCLIS list of CERCLA and Potential CERCLA Sites	0.50
Federal CERCLIS NFRAP Sites List	0.50
Federal RCRA CORRACTS Facilities List	1.00
Federal RCRA non-CORRACTS TSD Facilities List	0.50
Federal RCRA Generators List	Site and adjacent sites
Federal Institutional Controls/Engineering Controls (IC/EC) List	Site only
Federal ERNS List	Site only
State-and Tribal-Equivalent NPL Site list	1.00
State-and Tribal-Equivalent CERCLIS List	0.50
State and Tribal Solid Waste Landfills/Disposal Site List	0.50
State and Tribal Leaking Storage Tanks List	0.50
State and Tribal Registered Storage Tanks List	Site and adjacent sites
State and Tribal Voluntary Cleanup sites	0.50
State and Tribal Brownfields List	0.50

The search was performed using EDR, a private organization specializing in environmental records databases. A copy of the EDR Radius Map Report presenting this search is included in the full set of EDR reports on the Project Site in **Appendix C—EDR Radius Map Report™ with Geotracker©**. Note that some of the search distances used in the EDR report exceed the minimum search distances prescribed by the ASTM standard in the above table.

3.2. Federal National Priority List (NPL) Sites

The National Priority List (NPL) is the EPA database of contaminated sites identified for priority remedial action under the Federal Superfund Program. No sites on this list are located within one mile of the Project Site.

3.2.1. Federal NPL Delisted Sites

The NPL Delisted sites are those sites investigated for potential action under the Federal Superfund Program that have been delisted. No sites on this list are located within one mile of the Project Site.

3.2.2. Federal CERCLIS List

The Federal Comprehensive Emergency Response, Compensation and Liability Information System (CERCLIS) list contains sites that the EPA has investigated or is currently investigating for a release of hazardous substances. No sites on this list are located within 0.5 mile of the Project Site.

3.2.3. Federal CERCLIS NFRAP List

The CERCLIS No Further Remedial Action Planned (NFRAP) list contains sites at which assessment has been completed and EPA has determined no further steps will be taken to put the site on the NPL list. No sites on this list are located within 0.5 mile of the Project Site.

3.2.4. Federal RCRA CORRACTS Facilities List

The EPA maintains a list of hazardous waste treatment storage or disposal facilities and other RCRIS facilities that have been notified under the United States Environmental Protection Agency (USEPA) enforces the EPA Resource Conservation and Recovery Act (RCRA) to undertake corrective action. No sites on this list are located within one mile of the Project Site.

3.2.5. Federal RCRA Non-CORRACTS TSD Facilities List

The RCRA provides for the identification and tracking of hazardous wastes from the point of generation to the point of disposal. Facilities that may treat, store, or dispose (TSD) of hazardous wastes are compiled on the RCRA TSD list. No sites on this list are located within 0.5 mile of the Project Site.

3.2.6. Federal RCRA Generators List

The EPA maintains a list of all facilities that have been permitted to generate hazardous wastes under RCRA. The presence of a site on the list does not mean the site has had a release. No sites on this list are located within 0.25 mile of the Project Site.

3.2.7. Federal Institutional Controls/Engineering Controls (IC/EC) List

The IC/EC List is a federal list of Superfund sites that have either an engineering or institutional control. The list includes the contaminated media and the control. No sites on this list are located within 0.5 mile of the Project Site.

3.2.8. Federal ERNS List

The Emergency Response Notification System (ERNS) is a national computer database used to collect reports regarding the release of oil and hazardous substances. Information is recorded in the ERNS database when a release is reported to the Federal EPA. The initial notifications are preliminary and may not contain up-to-date or completely accurate information. No sites on this list are located at the Project Site.

3.2.9. State- and Tribal-Equivalent NPL

Identifies confirmed release sites where the State of California, Department of Toxic Substance Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high priority with a high potential risk. No sites were identified on this list.

3.2.10. State- and Tribal - Equivalent CERCLIS

The DTSC's Site Mitigation and Brownfields Reuse Program's EnviroStor data base identified sites that have known contamination or sites or which there may be reasons to investigate further. No locations are shown on this list.

3.2.11. State and Tribal Landfill And/Or Solid Waste Landfills Lists

The State of California maintains a list of registered landfill and solid waste disposal sites in the state. The presence of a site on the list does not mean the site is problematic. No sites on this list are located within 0.5 mile of the Project Site.

3.2.12. State and Tribal Leaking Storage Tanks List

The leaking underground storage tank (LUST) list contains sites at which there has been a confirmed release of regulated material from a registered underground storage tank system. No sites on this list are located within 0.5 mile of the Project Site.

3.2.13. State and Tribal Registered Storage Tanks Lists

The State of California and EPA Region 9 maintain a list of registered underground storage tank (UST) and aboveground storage tank (AST) systems. Inclusion on this list does not mean there has been a release or that the site is problematic. No plotted sites are located within 0.25 mile of the Project Site.

3.2.14. State and Tribal Voluntary Cleanup Sites

State and Tribal voluntary cleanup sites are sites where cleanup actions of contamination were conducted on a voluntary basis. No sites on this list are located within 0.5 mile of the Project Site.

3.2.15. State and Tribal Brownfields Sites

The NDEP maintains a list of registered brownfields sites in the State of California. No sites on this list are located within 0.5 mile of the Project Site.

3.3. Additional Environmental Records Sources

In addition to the standard environmental records sources listed above, the search included additional federal, state, tribal, and local environmental record sources. These sources included the US Brownfields list, local lists of solid waste disposal sites, local lists of hazardous waste/contaminated sites, local land records, and records of emergency release reports. The environmental record sources and standard search distances are included in the following table and discussed below:

Table 3 Additional Environmental Records Forrester Road Bridge Brawley, California

Additional Environmental Records	Search Radius (miles)
Local Brownfield Lists	0.50
Local Lists of Landfill/Solid Waste Disposal Sites	0.50
Local Lists of Hazardous Waste / Contaminated Sites	Project Site
Local Lists of Registered Storage Tanks	Project Site
Local Land Records	Project Site
Records of Emergency Release Reports	Project Site
Other Ascertainable Records (See Below)	Various
EDR High Risk Historic Records	
EDR Manufactured Gas Plant (MGP)	1.00
EDR US Historic Auto Stations	0.25
EDR US Historic Cleaners	0.25
EDR Recovered Government Archives (RGA)	
RGA (LUST)	Project Site
RGA Solid Waste Facilities (LF) list	Project Site
RGA State Hazardous Waste Facility (HWS) List	Project Site

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators	PCB TRANSFORMER	PCB Transformer Registration Database
DOT OP	Incident and Accident Data		
DOD	Department of Defense Sites	COAL ASH DOE	Steam-Electric Plant Operation Data
FUDS	Formerly Used Defense Sites		
CONSENT	Superfund (CERCLA	2020 COR ACTION	2020 Corrective Action Program List
ROD	Records of Decision		
UMTRA	Uranium Mill Tailings Sites	PRP	Potentially Responsible Parties

US MINES	Mines Master Index File	FUSRP	Formally Utilized Sites Remedial Action Program
TRIS	Toxic Chemical Release Inventory System	DOCKET HWC	Hazardous Waste Compliance Docket Listing
TSCA	Toxic Substances Control Act	UXO	Unexploded Ordinance Sites
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)	CA BOND EXP. PLAN	Bond Expenditure Plan
		CORTESE	"Cortese" Hazardous Waste & Substances Sites List
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	CUPA	CUPA Resource List
		DRYCLEANERS	Cleaner Facilities
SSTS	Section 7 Tracking System	EMI	Emissions Inventory Data
ICIS	Integrated Compliance Information System	ENF	Enforcement Action Listing
		HAZNET	Facility and Manifest Data
PADS	PCB Activity Database System	HIST COTESE	Hazardous Waste & Substance Siting List
MLTS	Material Licensing Tracking System	HWP	EnviroStor Permitted Facilities Listing
RADINFO	Radiation Information Database	HWT	Registered Hazardous Waste Transporter Database
FINDS	Facility Index System/Facility Registry System	MINES	Mines Site Location Listing
RAATS	RCRA Administrative Action Tracking System	MWMP	Medical Waste Management Program Listing
RMP	Risk Management Plans	PEST LIC	Pesticide Regulation Licenses Listing
NPDES	NPDES Permits Listing	PROC	Certified Processors Database
INDIAN RESERV	Indian Reservations	NOTIFY 65	Proposition 65 Records
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing Financial Assurance Financial Assurance Information Listing	UIC	UIC Listing
		WASTEWATER PITS	Oil Wastewater Pits Listing
		WDS	Waste Discharge System
LEAD SMELTERS	Lead Smelter Sites	WIP	Well Investigation Program Case List
US AIRS	Aerometric Information Retrieval System Facility Subsystem	FUELS PROGRAM	EPA Fuels Program Registered Listing
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	ABANDONED MINES	Abandoned Mines
		ICE	ICE
EPA WATCH LIST	EPA WATCH LIST	ECHO	Enforcement and Compliance History Information
US FIN ASSUR	Financial Assurance Information		

3.3.1. Local Brownfields Lists

US Brownfields: The EPA Assessment, Cleanup, and Redevelopment Exchange System (ACRES) stores information reported by EPA brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA regions. There are no sites on this list are located within 0.5 mile of the Project Site.

3.3.2. Local Lists of Landfill/Solid Waste Disposal Sites

These lists include the Waste Management Unit Database (State Water Resources Control Board Staff and Regional Water Quality Control Board), SWRCY: Recycling Information Listing (a listing of recycling facilities in California), Haulers: Registered Waste Tire Haulers Listing, Indian ODI (report on the status of open dumps on Indian Land), DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations (a listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside), and EPA ODI (Open Dump Inventory). No sites on these lists were located within 0.5 mile of the Project Site.

3.3.3. Local Lists of Hazardous Waste / Contaminated Sites

These lists include US CDL: Clandestine Drug Labs and US HIST CDL: National Clandestine Laboratory Register (listings of clandestine drug lab locations provided by the United States Department of Justice (DOJ).) No sites on this list are located at the Project Site.

3.3.4. Local Land Records

The database LIENS 2: CERCLA Lien Information is maintained by EPA for those sites where EPA Superfund liens exist due to superfund monies having been spent to investigate and address releases and threatened releases of contamination. No sites on this list are located at the Project Site.

3.3.5. Records of Emergency Release Reports

The HMIRS (Hazardous Materials Information Reporting System) contains hazardous material spill incidents reported to DOT. No sites on this list are located at the Project Site.

3.3.6. Other Ascertainable Records

Of the records listed in the "Other Ascertainable Records" above, there were no sites listed.

3.3.7. EDR High-Risk Historical Records

The EDR Proprietary Manufactured Gas Plant (MGP) Database includes records of coal gas plants (manufactured gas plants). The search radius for this database is one mile. The EDR Exclusive Historic Gas Stations database includes listings of potential gas station/filling station/service station sites that were available to EDR researchers. The search radius for this database is 0.25 mile. The EDR Exclusive Historic Dry Cleaners database includes listings of potential dry cleaner sites that were available to EDR researchers. The search radius for this database is 0.25 mile. No sites were found within the respective search radius of the Project Site.

3.3.8. EDR Exclusive Recovered Government Archives

The EDR Recovered Government Archive Leaking Underground Storage Tank (RGA LUST) database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. This list is compiled from records of the State of California Water Resources Control Board. The EDR Recovered Government Archive Landfill (RGA LF) database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. This list is derived from information from CalRecycle.

3.3.9. Orphan Sites

Orphan sites are locations that appear in the EDR search of environmental records that could not be located by EDR's standard methodology. Often, this discrepancy is due to lack of information about the site. Orphan sites can often be located by individualized research with the available information. The EDR environmental records search found no records.

No additional environmental record sources were available to, or used by, ES during this investigation.

3.4. Aerial Photographs

To evaluate past land use and potential environmental hazards present on the Project Site and surrounding land, our investigation included a review of historical aerial photographs. Photographs provided by EDR were taken in 1937, 1949, 1953, 1976, 1984, 1996, 2002, 2006, 2009, 2012, and 2016. Copies of those photographs are included in the EDR Aerial Photo Decade Package in **Appendix D—EDR Aerial Photo Decade Package** and are summarized here:

- 1937 - scale 1 inch = 500 feet. The 1937 photograph shows the bridge in-place. The surrounding areas appear to be undeveloped and/or used for agricultural purposes. Roads and the various canals are in-place. Structures are visible to the north of the bridge.
- 1949 – scale 1 inch = 500 feet. The 1949 photograph is similar to the 1937 photograph except that some the previously undeveloped land has been developed for agricultural purposes.
- 1953 – scale 1 inch = 500 feet. The 1953 photograph is similar to the 1949 photograph.
- 1976 – scale 1 inch = 500 feet. There are few changes in the 1976 photograph from previous photographs. The structures previously visible to the north are no longer present. The entire vicinity has been developed for agricultural purposes.
- 1984 – scale 1 inch = 500 feet. This photograph is similar to the 1976 photograph.
- 1996 – scale 1 inch = 500 feet. This photograph is similar to the 1984 photograph.
- 2002 – scale 1 inch = 500 feet. This photograph is similar to the 1996 photograph.

- 2006 – scale 1 inch = 500 feet. This photograph is similar to the 2002 photograph.
- 2009 – scale 1 inch = 500 feet. This photograph is similar to the 2006 photograph.
- 2012 – scale 1 inch = 500 feet. This photograph is similar to the 2009 photograph.
- 2016 – scale 1 inch = 500 feet. The photograph is similar to the 2012 photograph.

3.5. Vapor Encroachment Conditions

A Vapor Encroachment Screen was performed for the Project Site in accordance with the 2010 ASTM Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, E2600-10 (Standard E2600-10). The purpose of the screening was to identify the potential for vapors from hazardous substances or petroleum products to reach the Project Site.

A vapor encroachment condition (VEC) is defined as the presence or likely presence of chemicals of concern vapors in the subsurface of the Project Site caused by the release of vapors from contaminated soil or groundwater. Standard E 2600-10 specifies Areas of Concern (AOCs). AOCs are defined distances from a target property; sites on lists of environmental records within the AOC of a property may be sources of vapors that could encroach on the property.

The default AOC is within a 1/3-mile radius of a property. Refinement is performed by taking groundwater flow direction into account. When groundwater flow direction is considered, default AOCs are 1,760 feet, 365 feet, and 100 feet for sites hydrologically upgradient, cross-gradient, and downgradient of a property, respectively. Further reductions in AOCs can apply if a particular release is petroleum based.

For petroleum-contaminated sites, the AOC can be reduced further. AOCs are 530 feet for upgradient sites; 100 feet or 30 feet for downgradient sites for which some Light Non-Aqueous Phase Liquid (LNAPL) (floating on the water table) or only dissolved petroleum contamination in the groundwater are assumed, respectively; and 165 feet or 95 feet for cross-gradient sites for which some LNAPL (floating on the water table) or only dissolved petroleum contamination in the groundwater are assumed, respectively.

Potential sources of vapors were limited to sites that have recorded releases in the environmental records searched. The screening identified no potential sources. In light of the above, we are of the opinion that the potential for a VEC to occur at the Project Site can be ruled out.

3.6. City Directory

EDR searched copies of city directories for the Project Site and the nearby area along Forrester Road. Copies of these directories are available for the years 2017, 2014, 2010, 2005, 2000, 1995, 1992, 1987, and 1982. Findings of this search are discussed below. The directory images are within the EDR City Directory Image Report in **Appendix C**.

3.6.1. Forrester Road

The properties along Forrester Road are generally used for agricultural purposes. Accordingly, structures on Forrester Road matching identified addresses were observed to likely be agricultural-related. All listings were for individuals with no businesses indicated, except for two listings. One listing at 3998 Forrester Rd in 1992, 1995, and 2000 lists the property as Moore Bill Shop, and in 2010 and 2014 the property was re-listed as William Bolthouse Farms, Inc. The second listing at 5359 Forrester Rd in 2014 and 2017 is listed as Benson John R Farms, Inc. Both of these properties appear to be agriculture related.

3.7. Sanborn Maps

As part of the records review, EDR, Inc. searched the Sanborn Library for historical fire-insurance maps covering the Project Site and vicinity. The Library includes maps published by Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others.

The EDR Report indicates the area to be "Unmapped Property" and no fire insurance maps exist.

3.8. Interview with County Staff

UES attempted to contact Imperial County personnel but was unable to conduct an interview within the time constraints of this report. Due to the historic and current usage of the Project Site as agricultural, this is not considered a significant data gap.

Chapter 4. Site Reconnaissance

UES conducted a site reconnaissance of the site on Tuesday, November 2, 2021. Field sampling was conducted on Tuesday, December 21, 2021. Accordingly, the sampling methods and results are described in Chapter 5.

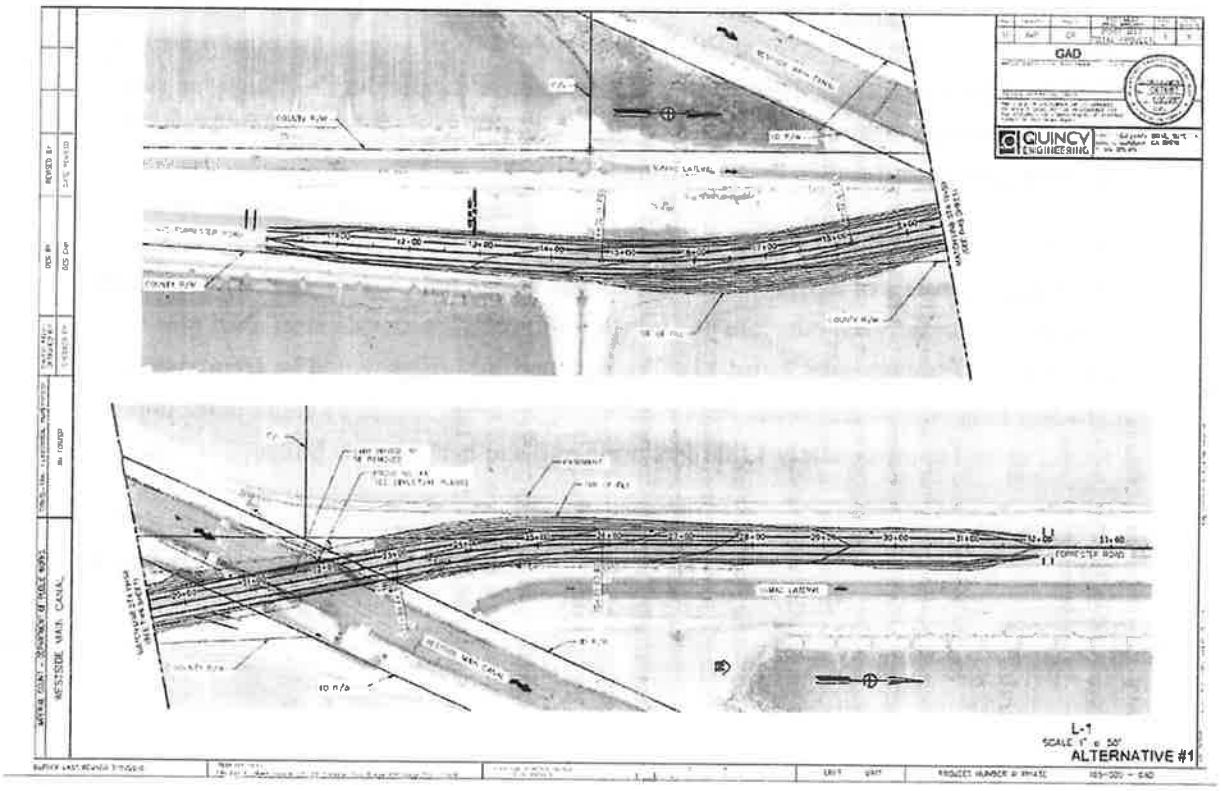
4.1. Project Site

The Project Site consists of various roadway improvements and irrigation related infrastructure associated with canals that cross the Project Site. The following sections of this report describe the Forrester Road Bridge, which is considered the most prominent feature at the Project Site. Photographs are included as **Appendix F—Photographic Log**. Photograph locations are shown on **Figure 3—Photograph Location Map**. The following sections describe each structure.

4.1.1. The Forrester Road Bridge:

The bridge consists of a continuous steel stinger bridge with a reinforced concrete deck supported by reinforced concrete pile cap bents founded on cast-in steel shell pile extensions. (**Photographs 2 and 12**). The replacement bridge would be approximately 115 feet long and 44 feet wide. New roadway approaches would be constructed that would extend approximately 1,000 feet north and south of the new bridge.

The roadway approaches are currently constructed with concrete filled in cast-in steel shell pile extensions. The bridge is supported by steel piles that have been driven into the Westside Main Canal (**Photographs 3 and 15**).



EEC ORIGINAL PKG

The road surfaces approaching both abutments are paved with asphalt over road base. The road surface has been striped with yellow paint. The surface of the road has degraded; there were several cracks in the asphalt surface (**Photograph 10**). The cracks did not appear to have been repaired in the past.

4.2. Adjacent Properties

The area surrounding the Project Site is primarily agricultural field with occasional single-family residences.

There are several canals that run north-south and east-west through the adjacent properties.

Chapter 5. Field Sampling

5.1. Field Sampling

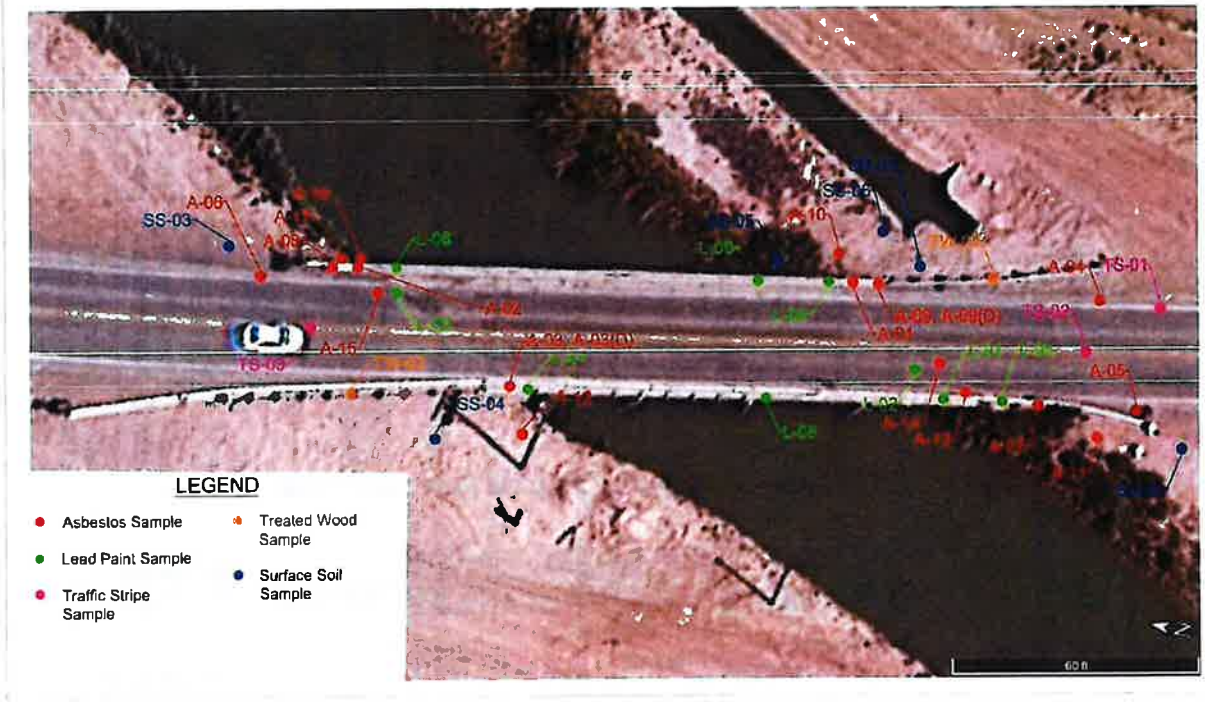
UES contracted a subcontractor iVet Environmental, Inc. to collect building materials of the bridge. The purpose of the sampling was to identify potentially hazardous materials that may be encountered during the demolition phase of the bridge replacement.

The sampling was conducted on Tuesday, December 21, 2021. Several building materials were specifically targeted for sampling:

- Six homogeneous areas (asbestos)
- Striping yellow-shade paint from the road (lead and chromium)
- Three identified paints (lead)
- Wood samples from the bridge structure (metals and semi-volatile organic compounds [SVOCs])
- Surface soil samples (total petroleum hydrocarbons [TPH], volatile organic compounds [VOCs], SVOCs, herbicides, pesticides, polychlorinated biphenyls [PCBs])

The locations of the samples are shown on **Figure 4—Sample Location Map.** The analytical laboratory reports are included in **Appendix G—iVet Environmental, Inc. Hazardous Materials Sampling Report.**

BRIDGE 58C-0014 PSI SAMPLING LOCATION MAP



EEC ORIGINAL PKG

5.2. Summary of Results

The following is a summary of the analytical results.

5.2.1. Potential Asbestos-Containing Materials:

A total six (6) potential asbestos-containing materials (PACMs) were collected from the bridge:

- Black bridge shims (asbestos)
- Black road asphalt with aggregate (asbestos)
- Grey concrete with aggregate at perimeter of bridge (asbestos)
- Grey concrete slurry without aggregate behind steel retaining walls (asbestos)
- Black asphalt paper below bridge (asbestos)
- White woven fabric sock with yellow fibers (asbestos)

A total of sixteen (16) samples analyzed. Asbestos was not reported in any of the sixteen samples collected. The reported analytical results for asbestos sampling are included below.

Table 4—Analytical Results—Asbestos Samples

Table 4 Analytical Results—Asbestos Samples Forrester Road Bridge Brawley, California

Sample Number	Sample Description	Sample Appearance	% Non- Fibrous	Asbestos: % / Type
A-01	Southeast corner of bridge	Brown/Black Fibrous Homogeneous	40% Non-fibrous (Other)	None Detected
A-02	Northeast corner of bridge	Brown/Black Fibrous Homogeneous	40% Non-fibrous (Other)	None Detected
A-03	Northwest corner of bridge	Brown Fibrous Homogeneous	20% Non-fibrous (Other)	None Detected
A-03(D)	Northwest corner of bridge	Brown Fibrous Homogeneous	40% Non-fibrous (Other)	None Detected
A-04	Southeast corner of bridge	Black Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected

Sample Number	Sample Description	Sample Appearance	% Non- Fibrous	Asbestos: % / Type
A-05	Southwest corner of bridge	Black Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-06	Northeast corner of bridge	Black Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-07	Southwest corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-08	Northeast corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-09	Southwest corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-09(D)	Northeast corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-10	Southeast corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-11	Southeast corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-12	Southeast corner of bridge	Grey Non-Fibrous Homogeneous	100% Non-fibrous (Other)	None Detected
A-13	Southwest corner of bridge – beneath bridge	Black Fibrous Homogeneous	40% Non-fibrous (Other)	None Detected
A-14	Southwest corner of bridge – beneath bridge	Black Fibrous Homogeneous	50% Non-fibrous (Other)	None Detected
A-15	Northeast corner of bridge – beneath bridge	Black Fibrous Homogeneous	40% Non-fibrous (Other)	None Detected
A-16	Northeast corner of bridge	White/Yellow Fibrous Homogeneous	10% Non-fibrous (Other)	None Detected
A-17	Northeast corner of bridge	White Fibrous Homogeneous	5% Non-fibrous (Other)	None Detected

5.2.2. Striping Paint: Lead and Chromium

Bulk paint chip samples were collected to evaluate lead and chromium concentrations and submitted to the laboratory (LA Testing) for analysis of lead by Test Method SW 846 3050B/7000B and chromium USEPA Test Method 6010B. This paint was the yellow striping on the north and south approaches to the Bridge (**Photograph 20**) and the white striping on the shoulder of Forrester Road (**Photograph 19**). A summary of the findings is included below.

Table 5 Analytical Results—Paint Chip Samples Forrester Road – Brawley, California

Sample No.	Sample Description	Lead (mg/cm^2)	Chromium (mg/Kg)
TS-01	White paint on asphalt (single lane perimeter line)	None Detected	None Detected
TS-02	Yellow paint on asphalt (lane division road paint)	None Detected	None Detected
TS-03	Yellow paint on asphalt (lane division road paint)	None Detected	None Detected

NOTES:
mg/cm^2 – milligrams per centimeter squared
mg/Kg – milligrams per Kilogram
NA – Not Analyzed

Lead and chromium concentrations were not detected in the analyzed samples.

5.2.3. Wood Samples: Metals and SVOCs:

Two (2) core wood samples were collected from the bridge. Sample TW-01 was collected from the bridge post and Sample TW-02 was collected from the wood block between the post and guard rail.

Both samples were submitted to Orange Coast Analytical, Inc. a certified laboratory in Tustin, California. The samples were analyzed for metals by USEPA Test Method 6010 (plus USEPA Method 7471A for mercury). A summary of the metal results is provided below in **Table 6—Analytical Results—Wood Samples**.

The test results were then compared against the regulatory levels indicated in Table 6.

The test results indicate that copper, arsenic, and chromium were found above the detection limits and exceeding TTLC values.

Table 6 Analytical Results—Wood Samples Forrester Road Bridge – Brawley, California

Sample ID	TW-01	TW-02	Regulatory Levels		
Sample Date	12/21/21		TTLC	STLC	TCLP
Units	mg/Kg	mg/Kg	mg/Kg	mg/L	mg/L
Antimony	<0.2	65	500	15	---
Arsenic	<0.2	3,200	500	5	5
Barium	7.7	19	10,000	100	100
Beryllium	<0.50	<0.50	75	0.75	---
Cadmium	<0.50	85	100	1	1
Chromium	0.58	4,300	2,500	5	5
Cobalt	<0.50	0.89	8,000	80	---
Copper	6,800	2,200	2,500	25	---
Lead	26	2.3	1,000	5	5
Mercury	<0.10	<0.10	20	0.2	0.2
Molybdenum	<1.0	<1.0	3,500	350	---
Nickel	<1.0	<1.0	2,000	20	---
Selenium	<4.8	<4.8	100	1	1
Silver	0.54	<0.50	500	5	5
Thallium	<2.0	<2.0	700	7	---
Vanadium	<0.50	2.5	2,400	24	---
Zinc	6.6	6.4	5,000	250	---

NOTES:
ND (1.0): Below the Practical Quantitation Limit (PQL) (PQL in parentheses)
TTLC: Total Threshold Limit Concentration
STCL: Soluble Threshold Limit Concentration
TCLP: Toxicity Characteristic Leaching Procedure
mg/Kg: milligrams per kilogram
mg/L: milligrams per liter

The wood core samples were also analyzed for semi-volatile organic compounds (SVOCs) by USEPA Test Method 8270. The SVOCs were not detected above the stated PQL of 0.5 mg/Kg for each of the analytes. A list of analytes is included in the Orange Coast Analytical, Inc. report (**Appendix F**).

5.2.4. Potential Lead-Containing Materials

Bulk paint chip samples were collected from the Forrester Road Bridge to evaluate lead concentrations and submitted to the laboratory (LA Testing) for analysis of lead by Test Method SW 846 3050B/7000B. A summary of the results is provided below in **Table 7 Analytical Results—Lead Paint Chip Samples.**

Table 7 Analytical Results—Lead Paint Chip Samples Forrester Road Bridge – Brawley, California

Sample No.	Sample Description	Lead (ppm)
L-01	Grey top and red beneath paint on steel "I" beams beneath bridge	46,000
L-02	Grey top and red beneath paint on steel "I" beams beneath bridge	44,000
L-03	Grey top and red beneath paint on steel "I" beams beneath bridge	48,0000
L-04	White paint on guard rails	140
L-05	White paint on guard rails	<80
L-06	White paint on guard rails	<80
L-07	White paint on guard rail posts	<80
L-08	White paint on guard rail posts	<80
L-09	White paint on guard rail posts	<80

NOTES:
ppm – parts per million

Lead concentrations greater than their respective report detection limits (RDLs) were detected in samples L-01, L-02, L-03, and L-04. At these concentrations, these paints are considered Lead-Based Paints (LBPs).

The remaining samples contained lead concentrations less than their respective report detection limits. These paints are not considered LBPs.

5.2.5. Surface Soil

Table 8 Analytical Results—Surface Soil Samples Forrester Road Bridge – Brawley, California

Surface soil samples were collected from the four corners of the bridge approaches (SS-01 through SS-04), one on the shore of the Westside Main Canal (SS-05), and one on the shore of the adjoining Tokay Canal (SS-06). The samples were analyzed for metals and semi-volatile organic compounds (SVOCs). The test results were then compared against the regulatory levels indicated in Table 6.

The test results indicate that no metals or SVOCs were found above the detection limits.

Sample ID	SS-01	SS-02	SS-03	SS-04	SS-05	SS-06
Sample Date	12/21/21					
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Antimony	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic	3.5	<2.0	2.5	2.9	2.4	3.1
Barium	180	170	130	180	140	190
Beryllium	0.70	<0.50	<0.50	<0.50	<0.50	0.53
Cadmium	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium	16	15	12	20	14	15
Cobalt	5.3	5.8	4.3	5.2	3.9	4.9
Copper	13	19	13	15	12	16
Lead	11	5.1	25	9.8	29	15
Mercury	<0.10	<0.10	<0.10	0.13	<0.10	<0.10
Molybdenum	<1.0	<1.0	<1.0	1.4	<1.0	<1.0
Nickel	12	10	11	21	9.3	13
Selenium	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Silver	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Thallium	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vanadium	29	35	21	25	19	24
Zinc	48	46	58	77	44	74

The surface soil samples were also analyzed for total petroleum hydrocarbons (TPHs), volatile organic compounds (VOCs), pesticides, herbicides, and polychlorinated biphenyls (PCBs). None of these contaminants were detected in the samples above their respective detection limits. A list of analytes is included in the Orange Coast Analytical, Inc. report (**Appendix F**).

5.3. Conclusions

The Forrester Road Bridge was tested for PACMs, lead and chromium in paint, and metals and SVOCs.

- Asbestos was not found in the samples collected.
- Lead and chromium concentrations were not found in the three striped paint samples collected from Forrester Road.
- Lead concentrations in four paint samples taken from the Forrester Road Bridge exceed their respective report detection limits.
- Copper, arsenic, and chromium were found above the detection limits and exceeding TTLC values in the wood samples collected.
- SVOCs and metals were not detected in the surface soil samples collected.

The recommendations are based on these findings.

Chapter 6. Recommendations

The following are recommendations based on the observation and analytical results from this assessment:

6.1. Initial Site Assessment:

Based on the findings of the site reconnaissance and report and agency records review; UES did not find an environmental concern.

6.2. Initial Material Sampling:

The following is the recommendations from the Initial Material Sampling.

6.2.1. Potential Asbestos-Containing Materials

Potential asbestos-containing materials were not detected in the samples collected.

6.2.2. Striping Paint: Lead and Chromium

Lead and chromium were not detected in the samples collected.

6.2.3. Wood Samples: Metals

Because the levels of several of the analytes were at or above the TTLC/STLC/TCLP limits, special disposal of the treated wood may be required based on the requirements of the disposal facility.

6.2.4. Wood Samples: Semi-Volatile Organic Compounds

SVOCs were not detected in the wood samples collected.

6.2.5. Potential Lead-Containing Materials

Lead concentrations above the respective report detection limit were found in four paint samples taken from the Forrester Bridge. These paints will need to be handled as lead-based paints (LBPs).

6.2.6. Surface Soil: Metals and Semi-Volatile Organic Compounds

Metals and SVOCs were not detected in the surface soil samples.

Respectfully,

Universal Engineering Sciences

Written By:

Dean Stanphill
Environmental Department Manager

Chapter 7. References

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APPENDIX A
Preparation Guidelines for Initial Site Assessment (ISA) Checklist for Hazardous Waste

APPENDIX A – Preparation Guidelines for Initial Site Assessment Checklist for Hazardous Waste

Table of Contents

APPENDIX A – Preparation Guidelines for Initial Site Assessment Checklist for Hazardous Waste

ARTICLE 1 Guidelines

Introduction

The Initial Site Assessment (ISA) Checklist is a guide for district screening and assessment of projects for potential hazardous waste involvement. It is not intended to take a lot of time and effort to complete; however, some assessments may take longer to complete just because of the magnitude and/or location of a proposed project.

Project Information Section

Be sure that the project manager and project engineer have been identified. Do not begin the initial site assessment until the written project description and location maps have been provided (since hazardous waste could affect project development, it is important to know what type of work is proposed and where it will be located).

Location Map

It is suggested that the location map provided by design be attached to the initial site assessment checklist to provide a record of the area that has been assessed, as well as the findings. All future project limit changes should cause design to request further assessment for hazardous waste.

Project Screening Section

Items 1 and 2 are risk indicators that could be used to determine the level of effort required to complete the initial site assessment. Generally, a project that requires new right-of-way, excavation, structure modification or demolition, or utility relocation will have a greater potential for hazardous waste involvement than a project that does not include these features. An urban location would

generally present more of a risk than a rural location; industrial land uses would generally be more risky than commercial uses; and so on.

Items 3 through 6 deal with the actual assessment:

- First, check available records to see if a known site is present. This item should not take a lot of effort, but it will require contacting the appropriate regional water quality control board, the Department of Toxic Substances Control, and the city/county agencies that deal with leaking underground tanks.
- Next, conduct a field inspection to look for indicators of potential hazardous waste or contamination. Identify businesses that store or use potentially hazardous materials (service stations, auto wrecking yards, paint companies, machine shops, metal platers, electronic manufacturers, dry cleaners, agricultural chemical suppliers, etcetera). Other things to look for include landfills and dumps, surface storage of potentially hazardous materials (sumps, pits, steel drums, etcetera), illegal dumping sites (especially on rural projects), and serpentine.
- Based on the field inspection, if there may have been a previous land use that could still present a hazardous waste or contamination risk, it may be necessary to verify the previous land use (for example, abandoned service stations can usually be identified by the type of structure and location and the underground tank may still be there).

Initial Site Assessment Determination

The ISA determination is simply "Yes" or "No."

YES: A known, or potential site has been identified that could affect the proposed project and will take more time and effort to define and coordinate cleanup options.

- Lead concentrations in four paint samples taken from the Forrester Road Bridge exceed their respective report detection limits.

- Copper, arsenic, and chromium were found above the detection limits and exceeding TTLC values in the wood samples collected.

Initial Site Assessment (ISA) Checklist

Project Information

District 11, County Imperial, Route 78, Post Mile IMP R9.202

Description: The Project Site consists of various roadway improvements and irrigation related infrastructure associated with canals that cross the Project Site. which is the Forrester Road Bridge.

Is the project on the HW Study Minimal-Risk Projects List? No

Project Manager Dean Stanphill phone # 702-873-3478

Project Screening

Attach the project location map to this checklist to show location of all know and/or potential HW sites identified.

1. Project Features: Excavation? Yes. Railroad Involvement? No. Structure demolition/ modification? Demolition. Subsurface utility relocation? No.

2. Project Setting: Bridge

   Rural or Urban: Rural

   Current land uses: Agricultural

   Adjacent land uses: Agricultural

3. Check federal, State, and local environmental and health regulatory agency records as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.

4. Conduct Field Inspection. Date: 11/2/2021. Use the attached map to locate potential or known HW sites.

   STORAGE STRUCTURES / PIPELINES:

   Underground tanks: None Surface tanks: None

   Sumps: None Ponds: None

   Drums: None Basins: None

   Transformers: None Landfill: None

Initial Site Assessment (ISA) Checklist
(continued)

CONTAMINATION: (spills, leaks, illegal dumping, etcetera)

Surface staining: None Oil sheen: None

Odors: None Vegetation damage: None

Other

HAZARDOUS MATERIALS: (asbestos, lead, etcetera)

Buildings: None Spray-on fireproofing: None

Pipe wrap : None Friable tile: None

Acoustical plaster: None Serpentine: None

Paint: Yes Other

5. Additional record search, as necessary, of subsequent land uses that could have resulted in a hazardous waste site. Use the attached map to show the location of potential hazardous waste sites.

6. Other comments and/or observations: None

ISA Determination

Does the project have potential hazardous waste involvement? Yes. If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Investigation? Yes. If "YES," explain; then give an estimate of additional time required: It is estimated that the additional time required to abate the lead, copper, arsenic, and chromium concentrations in materials associated with the Forrester Road Bridge will be approximately a week. Time will need to be alloted for abatement and removal of the materials as well as comprehensive confirmation testing that all contaminants of concern have been removed.

A brief memorandum should be prepared to transmit the ISA conclusions to the Project Manager and Project Engineer.

ISA Conducted by Dean Stanphill Date 1/20/2022

APPENDIX B
EDR Topographic Map Reports

Forrester Road Bridge Phase I ESA
Forrester Bridge
Brawley, CA 92227

Inquiry Number: 6745806.4
November 10, 2021

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EEC ORIGINAL PKG

EDR Historical Topo Map Report

11/10/21

Site Name:	Client Name:
Forrester Road Bridge Phase I	Universal Engineering Sciences
Forrester Bridge	4480 West Hacienda Ave
Brawley, CA 92227	Las Vegas, NV 89118
EDR Inquiry # 6745806.4	Contact: Megan Hente

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Universal Engineering Sciences were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.#	NA
Project:	4240.2100010.0000

Coordinates:

Latitude:	32.922886 32° 55' 22" North
Longitude:	-115.621388 -115° 37' 17" West
UTM Zone:	Zone 11 North
UTM X Meters:	628901.23
UTM Y Meters:	3643581.09
Elevation:	-71.00' below sea level

Maps Provided:

2012
1979
1957
1948
1940

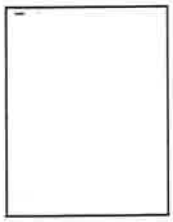
Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Brawley

7.5-minute, 24000



Brawley NW

7.5-minute, 24000

1979 Source Sheets

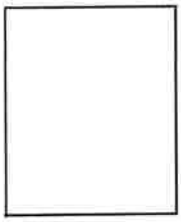
Brawley

7.5-minute, 24000
Aerial Photo Revised 1976

Brawley NW

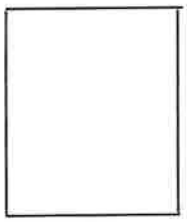
7.5-minute, 24000
Aerial Photo Revised 1976

1957 Source Sheets



Brawley

7.5-minute, 24000
Aerial Photo Revised 1953



Brawley NW

7.5-minute, 24000
Aerial Photo Revised 1953

1948 Source Sheets

BRAWLEY

15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

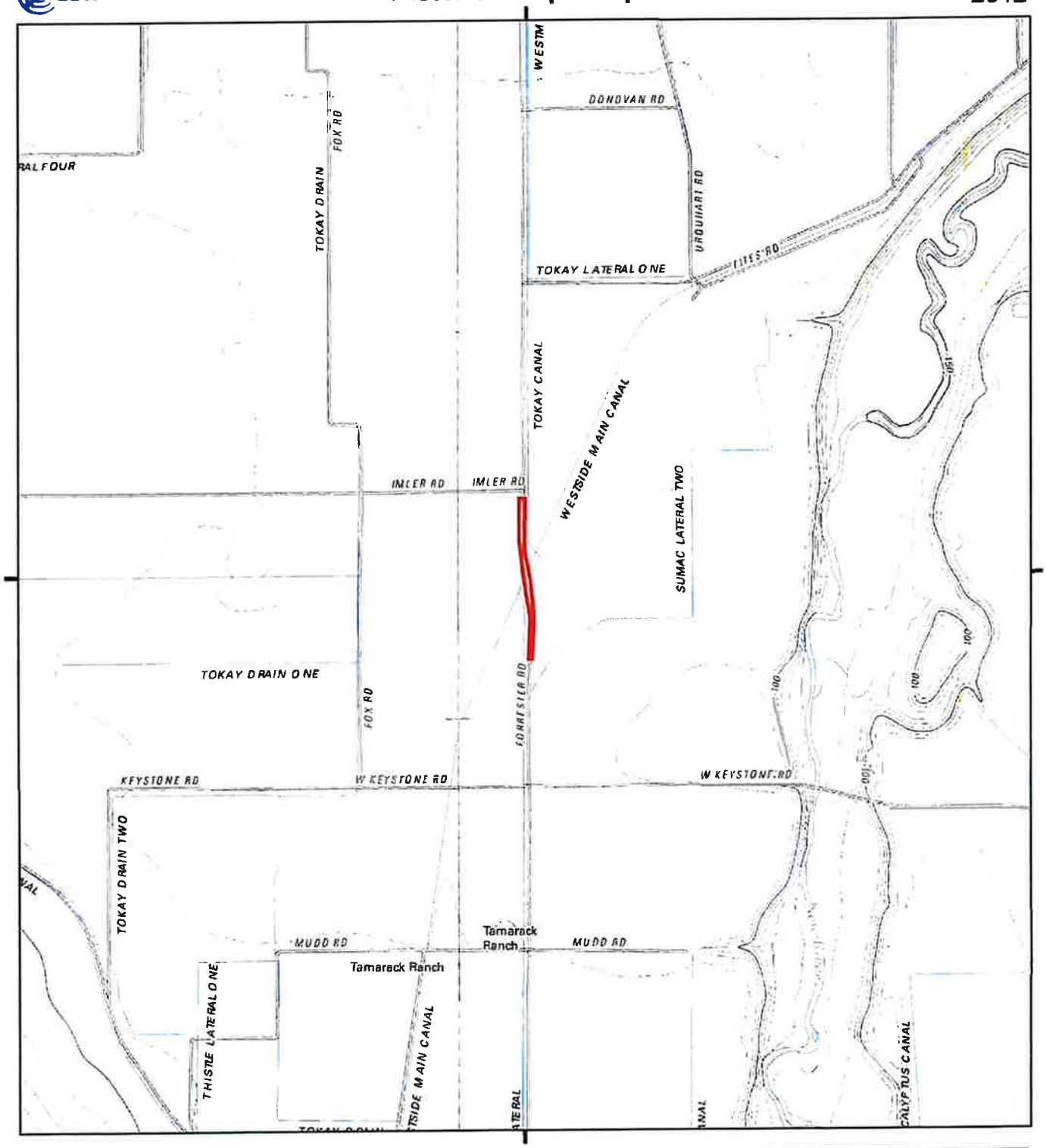
1940 Source Sheets

Brawley

15-minute, 62500
Aerial Photo Revised 1940

Historical Topo Map

2012



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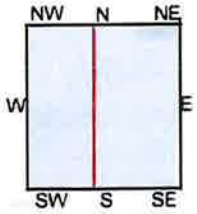


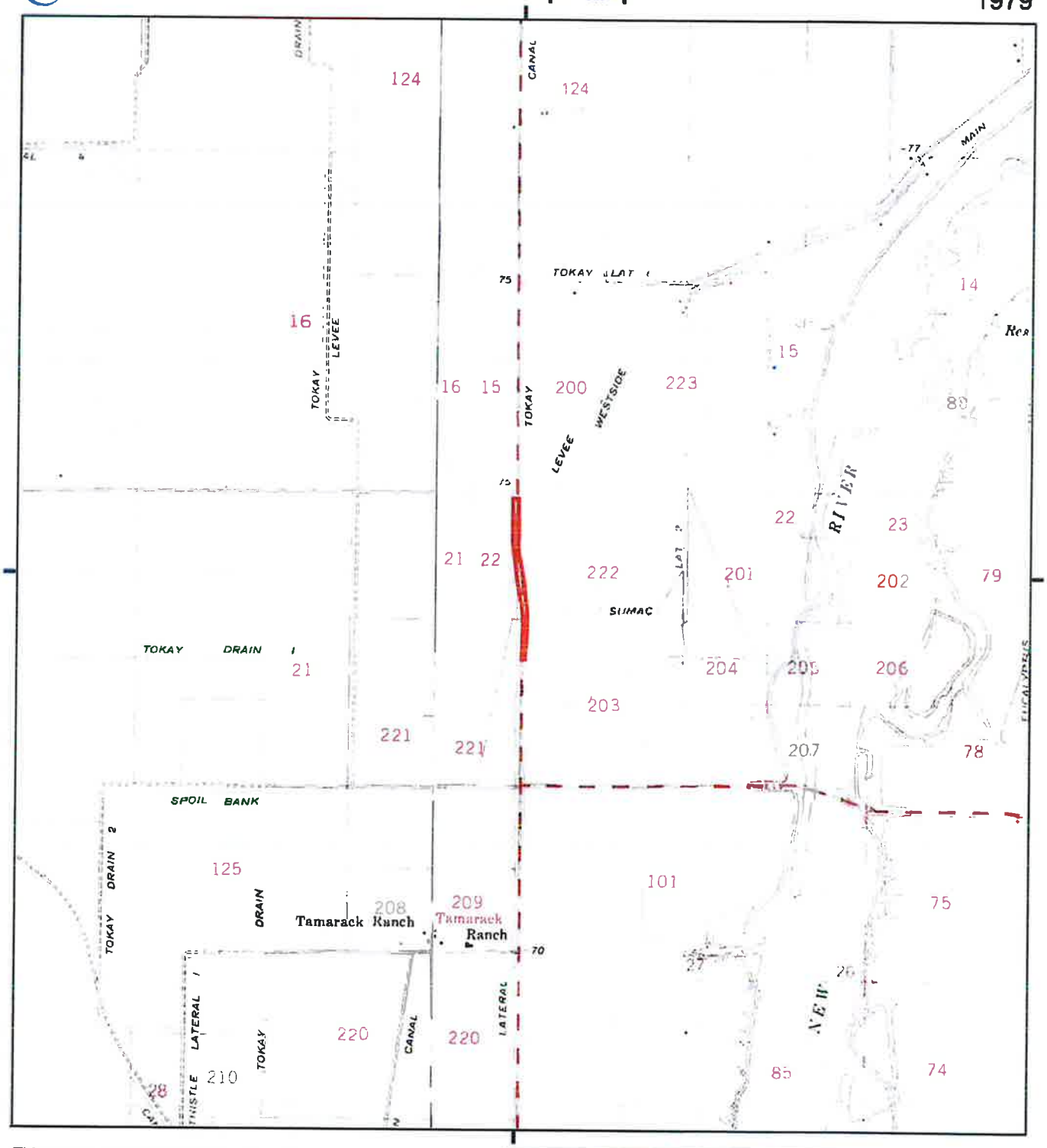
TP, Brawley, 2012, 7.5-minute
W, Brawley NW, 2012, 7.5-minute

SITE NAME: Forrester Road Bridge Phase I ESA
ADDRESS: Forrester Bridge
Brawley, CA 92227
CLIENT: Universal Engineering Sciences

N

Historical Topo Map

1979



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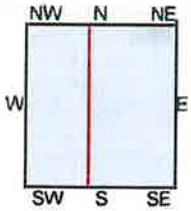


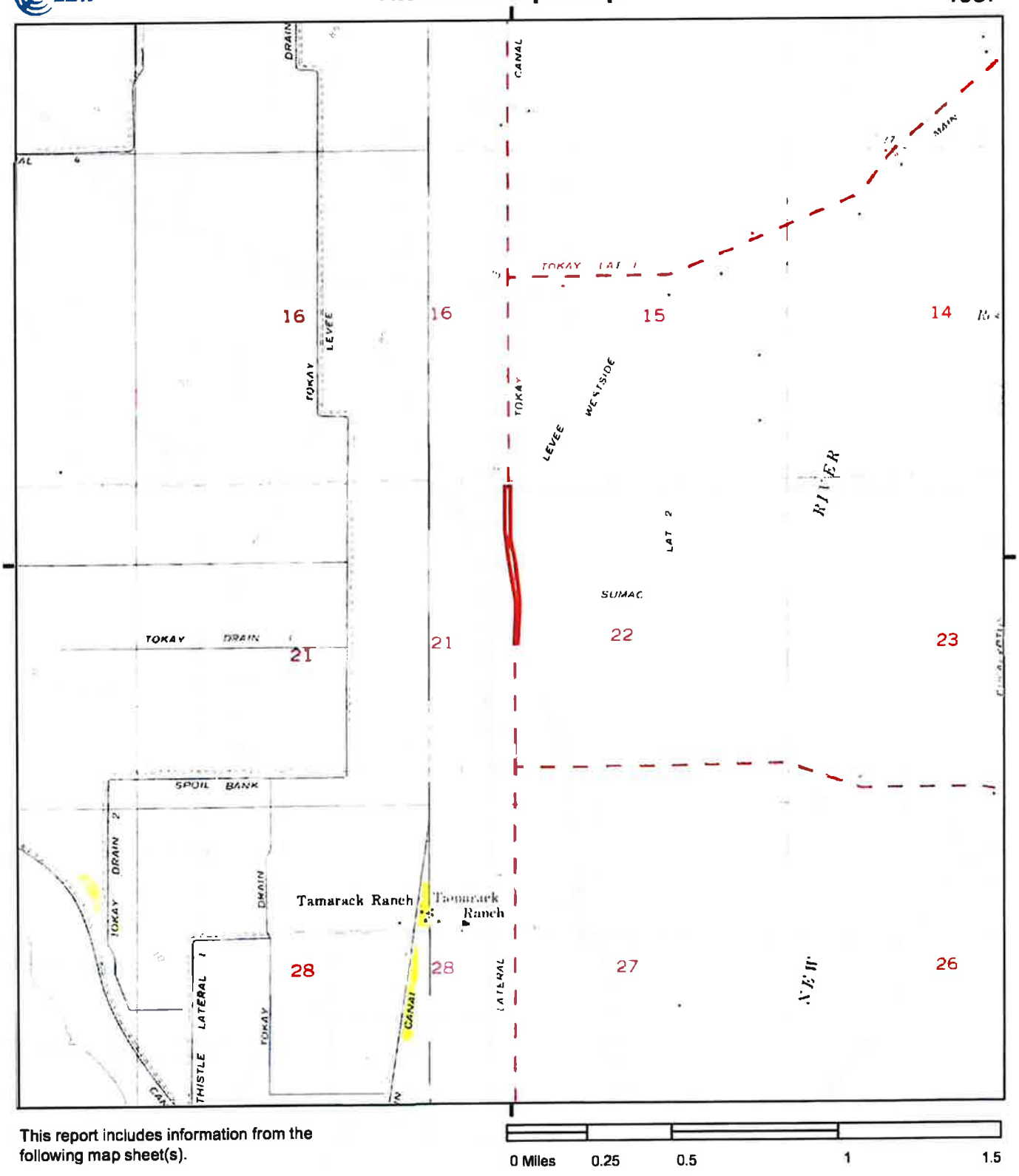
TP, Brawley, 1979, 7.5-minute
W, Brawley NW, 1979, 7.5-minute

SITE NAME: Forrester Road Bridge Phase I ESA
ADDRESS: Forrester Bridge
Brawley, CA 92227
CLIENT: Universal Engineering Sciences

N

Historical Topo Map

1957



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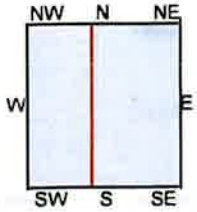
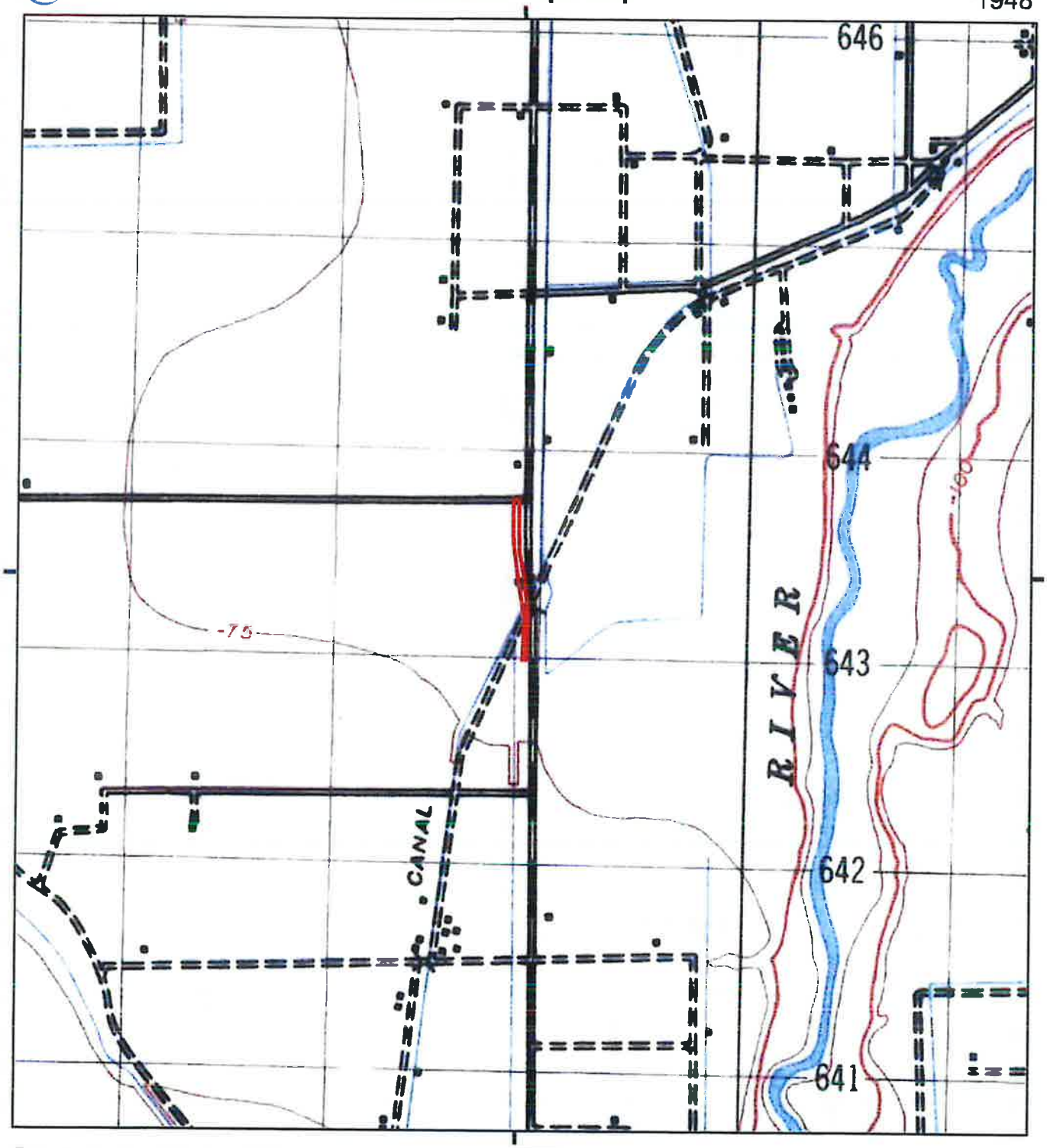


TP, Brawley, 1957, 7.5-minute
W, Brawley NW, 1957, 7.5-minute

SITE NAME: Forrester Road Bridge Phase I ESA
ADDRESS: Forrester Bridge
Brawley, CA 92227
CLIENT: Universal Engineering Sciences

Historical Topo Map

1948



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

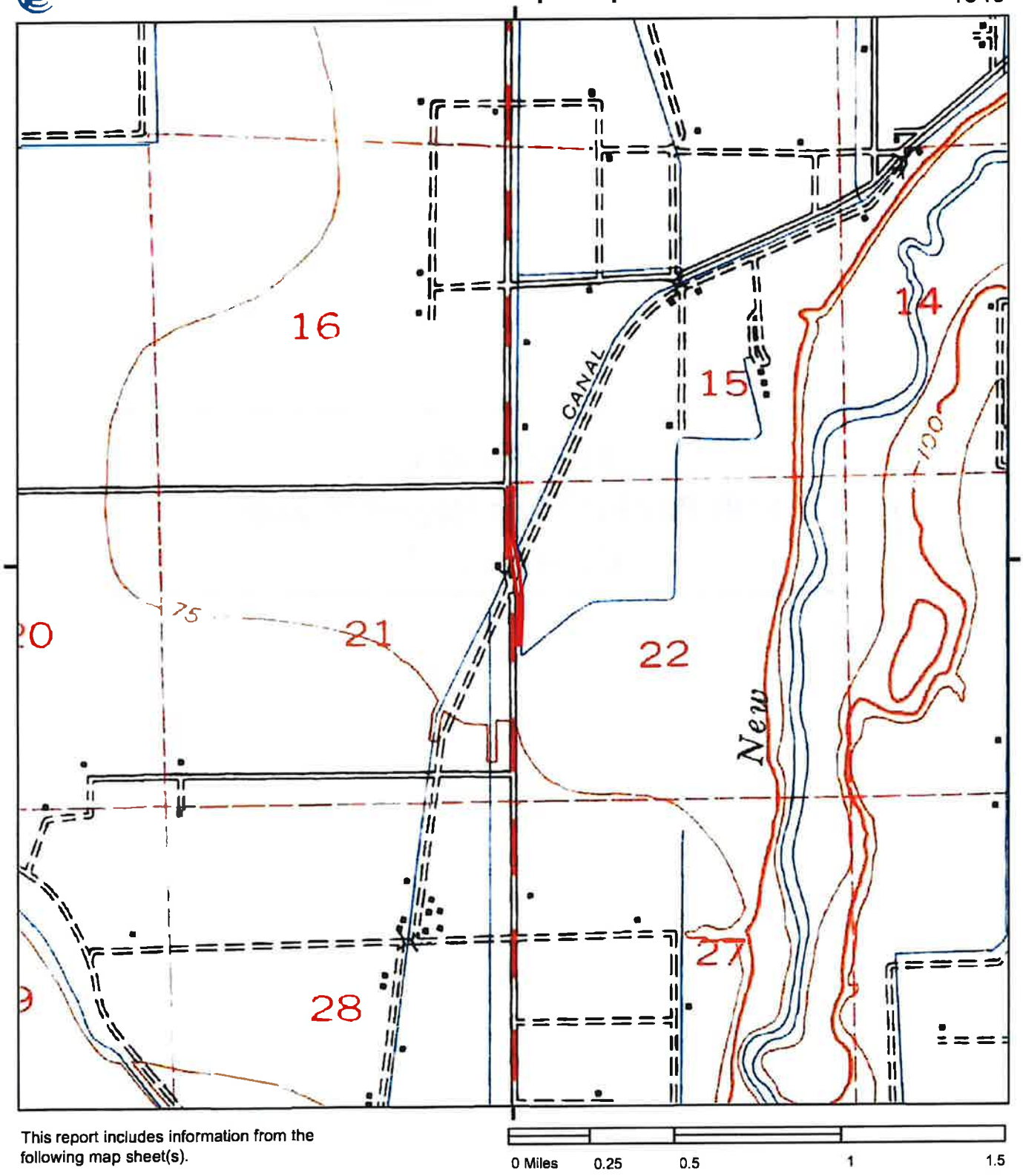
TP, BRAWLEY, 1948, 15-minute

SITE NAME: Forrester Road Bridge Phase I ESA
ADDRESS: Forrester Bridge
Brawley, CA 92227
CLIENT: Universal Engineering Sciences

N

Historical Topo Map

1940



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0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Brawley, 1940, 15-minute

SITE NAME: Forrester Road Bridge Phase I ESA
ADDRESS: Forrester Bridge
Brawley, CA 92227
CLIENT: Universal Engineering Sciences

N

APPENDIX C
EDR Radius Map Report™ with Geotracker©

Forrester Road Bridge Phase I ESA
Forrester Bridge
Brawley, CA 92227

Inquiry Number: 6745806.2s
November 11, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

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

EXECUTI VE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

FORRESTER BRIDGE
BRAWLEY, CA 92227

COORDINATES

Latitude (North):	32.9228860 - 32° 55' 22.38"
Longitude (West):	115.6213880 - 115° 37' 16.99"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	628904.1
UTM Y (Meters):	3643390.2
Elevation:	71 ft. below sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	12016213 BRAWLEY, CA
Version Date:	2018
West Map:	12008816 BRAWLEY NW, CA
Version Date:	2018

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140519, 20140606
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
FORRESTER BRIDGE
BRAWLEY, CA 92227

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing
SEMS ..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ..... RCRA - Large Quantity Generators
RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-VSQG ..... RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROLS..... Institutional Controls Sites List

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
CPS-SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing
VCP..... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT..... Waste Management Unit Database
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands
ODI..... Open Dump Inventory

EXECUTIVE SUMMARY

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
CERS HAZ WASTE ..... CERS HAZ WASTE
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register
AQUEOUS FOAM ..... Former Fire Training Facility Assessments Listing
PFAS ..... PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST ..... SWEEPS UST Listing
HIST UST ..... Hazardous Substance Storage Container Database
CERS TANKS ..... California Environmental Reporting System (CERS) Tanks
CA FID UST ..... Facility Inventory Database

Local Land Records

LIENS ..... Environmental Liens Listing
LIENS 2 ..... CERCLA Lien Information
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ..... RCRA - Non Generators / No Longer Regulated
FUDS ..... Formerly Used Defense Sites
DOD ..... Department of Defense Sites
SCRD DRYCLEANERS ..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ..... Financial Assurance Information
EPA WATCH LIST ..... EPA WATCH LIST
2020 COR ACTION ..... 2020 Corrective Action Program List
TSCA ..... Toxic Substances Control Act
TRIS ..... Toxic Chemical Release Inventory System
SSTS ..... Section 7 Tracking Systems
ROD ..... Records Of Decision
RMP ..... Risk Management Plans
RAATS ..... RCRA Administrative Action Tracking System
PRP ..... Potentially Responsible Parties
PADS ..... PCB Activity Database System
ICIS ..... Integrated Compliance Information System
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

EXECUTIVE SUMMA RY

MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HAZNET	Facility and Manifest Data
ICE	ICE
HIST CORTESE	Hazardous Waste & Substance Site List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
UIC	UIC Listing
UIC GEO	UIC GEO (GEOTRACKER)
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
MILITARY PRIV SITES	MILITARY PRIV SITES (GEOTRACKER)
PROJECT	PROJECT (GEOTRACKER)
WDR	Waste Discharge Requirements Listing
CIWQS	California Integrated Water Quality System
CERS	CERS
NON-CASE INFO	NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS	OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS	PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT	SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)
HWTS	Hazardous Waste Tracking System
MINES MRDS	Mineral Resources Data System

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were not identified.

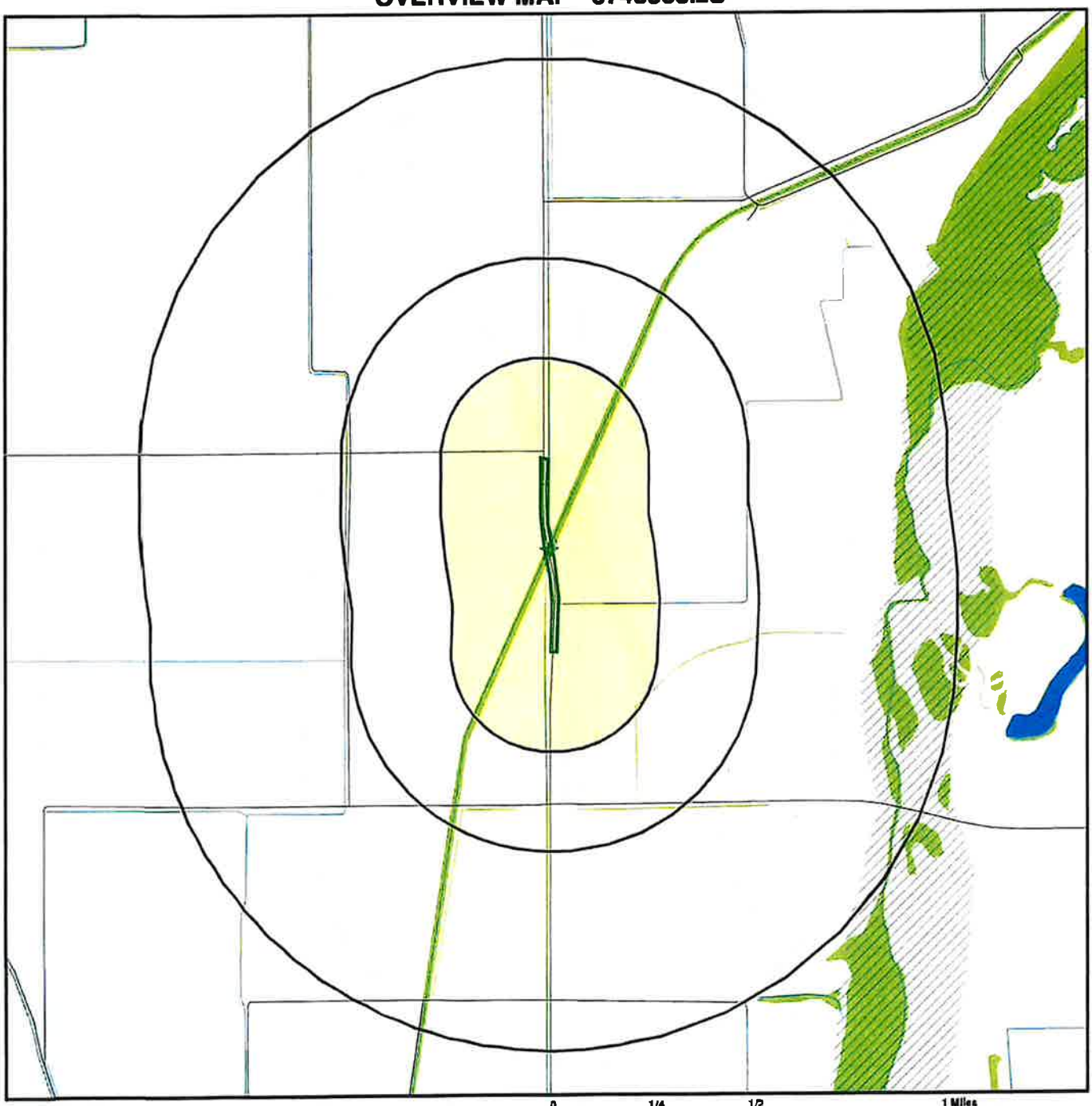
Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
	CDL

OVERVIEW MAP - 6745806.2S



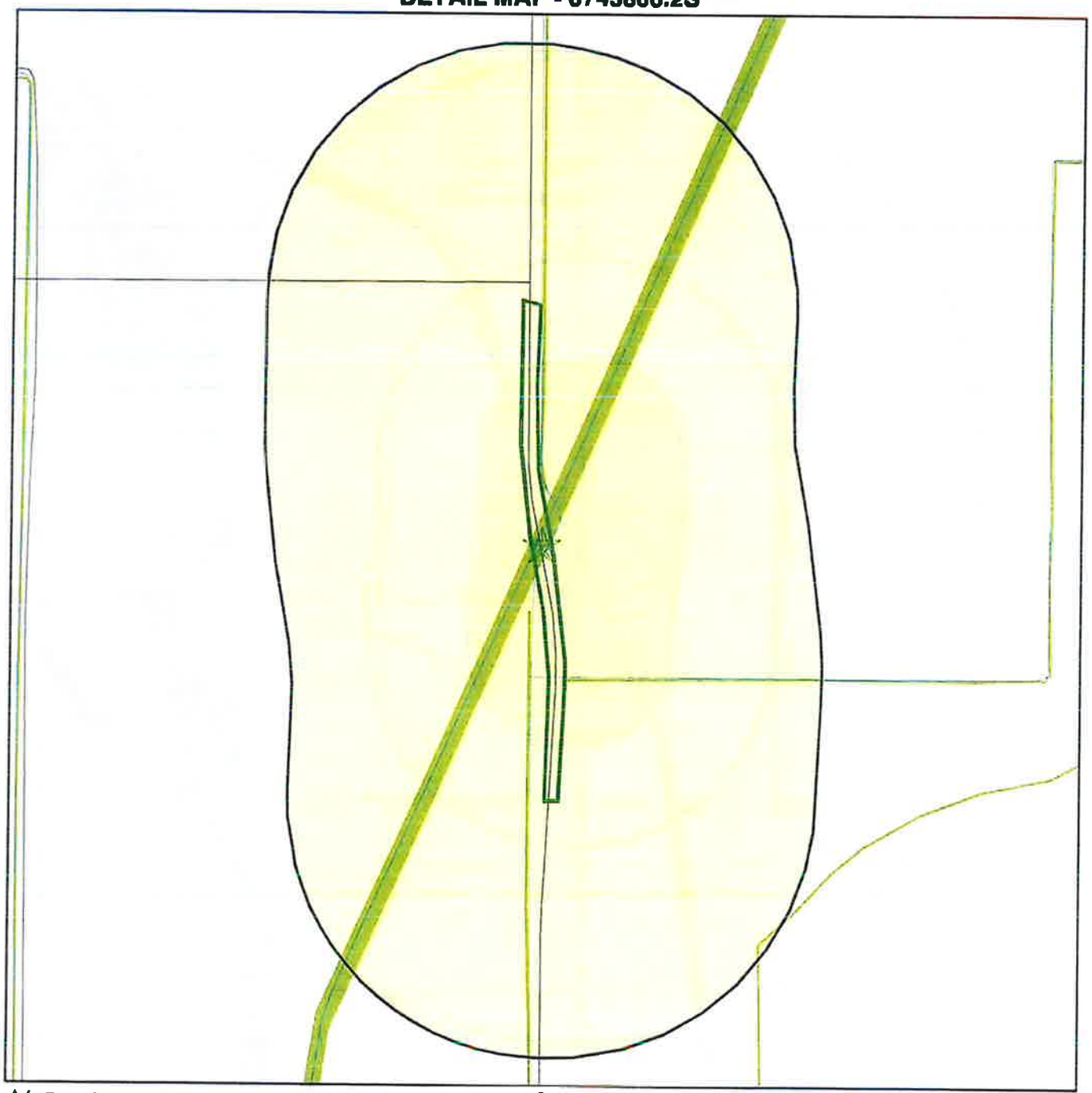
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Forrester Road Bridge Phase I ESA	CLIENT: Universal Engineering Sciences
ADDRESS: Forrester Bridge Brawley CA 92227	CONTACT: Megan Hente
LAT/LONG: 32.922886 / 115.621388	INQUIRY #: 6745806.2s DATE: November 11, 2021 5:02 am

EEC ORIGINAL PKG

DETAIL MAP - 6745806.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/8 1/4 1/2 Miles

Indian Reservations BIA
Special Flood Hazard Area (1%)
0.2% Annual Chance Flood Hazard
National Wetland Inventory
State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Forrester Road Bridge Phase I ESA	CLIENT:	Universal Engineering Sciences
ADDRESS:	Forrester Bridge Brawley CA 92227	CONTACT:	Megan Hente
		INQUIRY #:	6745806.2s
LAT/LONG:	32.922886 / 115.621388	DATE:	November 11, 2021 5:05 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	0	0	0	0	0	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction Distance Elevation	Site	MAP FINDINGS Database(s)	EDR ID Number EPA ID Number

NO SITES FOUND

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
IMPERIAL	S107539892		ON IMLER ROAD, 1.5 MILES WEST	92251	CDL

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: N/A
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 06/24/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 07/12/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 77

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/23/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/23/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 61

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/09/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 87

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/29/2021
Date Data Arrived at EDR: 02/17/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 33

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 05/20/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/30/2021
Number of Days to Update: 87

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 06/22/2021
Date Made Active in Reports: 09/20/2021
Number of Days to Update: 90

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/06/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 06/01/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/17/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/28/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 06/11/2021
Date Made Active in Reports: 09/07/2021
Number of Days to Update: 88

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 07/08/2021
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/17/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/13/2021
Number of Days to Update: 88

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2021
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 68

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 10/28/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/22/2021
Date Data Arrived at EDR: 07/22/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 01/20/2021
Date Made Active in Reports: 04/08/2021
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CERS HAZ WASTE: CERS HAZ WASTE
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 77

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing
A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

AQUEOUS FOAM: Former Fire Training Facility Assessments Listing
Airports shown on this list are those believed to use Aqueous Film Forming Foam (AFFF), and certified by the Federal Aviation Administration (FAA) under Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139). This list was created by SWRCB using information available from the FAA. Location points shown are from the latitude and longitude listed on the FAA airport master record.

Date of Government Version: 12/01/2019
Date Data Arrived at EDR: 08/19/2021
Date Made Active in Reports: 10/28/2021
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-341-5455
Last EDR Contact: 08/19/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Public Health
Telephone: 415 252 3896
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/27/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/12/2021
Date Data Arrived at EDR: 09/13/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 15

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/13/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/17/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 66

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/08/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/13/2021
Date Data Arrived at EDR: 09/15/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/19/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/12/2021
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/20/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/07/2021
Date Data Arrived at EDR: 05/13/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 03/05/2021
Number of Days to Update: 50

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020
Date Data Arrived at EDR: 01/08/2021
Date Made Active in Reports: 03/22/2021
Number of Days to Update: 73

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021
Date Data Arrived at EDR: 03/11/2021
Date Made Active in Reports: 05/11/2021
Number of Days to Update: 61

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 12/31/2020
Date Made Active in Reports: 02/09/2021
Number of Days to Update: 70

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/03/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/27/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/26/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 07/16/2021
Number of Days to Update: 2

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/15/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program
DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021
Date Data Arrived at EDR: 07/27/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 87

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites
Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/12/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 07/29/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 08/31/2021
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data
Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2021
Date Data Arrived at EDR: 05/25/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 78

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 62

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/05/2021
Date Data Arrived at EDR: 05/18/2021
Date Made Active in Reports: 08/17/2021
Number of Days to Update: 91

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/21/2021
Date Made Active in Reports: 08/11/2021
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/26/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/28/2021
Number of Days to Update: 89

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 10/22/2021
Number of Days to Update: 70

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/13/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 08/17/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/21/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 84

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 05/18/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 08/05/2021
Number of Days to Update: 78

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 06/10/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 78

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/17/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/16/2021
Date Data Arrived at EDR: 04/20/2021
Date Made Active in Reports: 07/07/2021
Number of Days to Update: 78

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/04/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/14/2021
Date Data Arrived at EDR: 04/15/2021
Date Made Active in Reports: 07/06/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/05/2021
Number of Days to Update: 84

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/13/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/13/2021
Date Data Arrived at EDR: 08/13/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 87

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/13/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/01/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 85

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/06/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/10/2021
Date Data Arrived at EDR: 05/11/2021
Date Made Active in Reports: 07/27/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/09/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/04/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 03/12/2021
Date Data Arrived at EDR: 03/16/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 77

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 02/11/2021
Date Data Arrived at EDR: 07/01/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 90

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/07/2021
Date Data Arrived at EDR: 06/07/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 81

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 05/19/2021
Date Data Arrived at EDR: 05/19/2021
Date Made Active in Reports: 08/12/2021
Number of Days to Update: 85

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 07/15/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/24/2021
Number of Days to Update: 82

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/03/2021
Date Data Arrived at EDR: 06/03/2021
Date Made Active in Reports: 08/25/2021
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/26/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/14/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 84

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR. 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/22/2021
Number of Days to Update: 84

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/06/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 09/30/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/15/2021
Date Data Arrived at EDR: 06/16/2021
Date Made Active in Reports: 07/02/2021
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/11/2021
Number of Days to Update: 83

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 07/23/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 77

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/30/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/13/2021
Next Scheduled EDR Contact: 11/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/12/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/13/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 56

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/06/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 6

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/03/2020
Date Data Arrived at EDR: 01/26/2021
Date Made Active in Reports: 04/14/2021
Number of Days to Update: 78

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 09/07/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 11/04/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/08/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2021
Date Data Arrived at EDR: 02/18/2021
Date Made Active in Reports: 05/10/2021
Number of Days to Update: 81

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 02/04/2021
Date Data Arrived at EDR: 04/16/2021
Date Made Active in Reports: 04/21/2021
Number of Days to Update: 5

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 10/08/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
- A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 06/28/2021
Number of Days to Update: 11

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 04/19/2021
Date Data Arrived at EDR: 06/17/2021
Date Made Active in Reports: 09/14/2021
Number of Days to Update: 89

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/24/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/09/2021
Date Made Active in Reports: 09/29/2021
Number of Days to Update: 82

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 02/02/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Semi-Annually

MENDOCINO COUNTY:

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 03/24/2021
Date Data Arrived at EDR: 04/07/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/09/2021
Next Scheduled EDR Contact: 11/28/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2021
Date Data Arrived at EDR: 03/02/2021
Date Made Active in Reports: 05/19/2021
Number of Days to Update: 78

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/06/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/23/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 06/24/2021
Number of Days to Update: 1

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 08/03/2021
Date Made Active in Reports: 10/26/2021
Number of Days to Update: 84

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/09/2021
Date Data Arrived at EDR: 07/29/2021
Date Made Active in Reports: 10/19/2021
Number of Days to Update: 82

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 06/01/2021
Number of Days to Update: 6

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

RIVERSIDE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 06/29/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 03/30/2021
Date Data Arrived at EDR: 04/01/2021
Date Made Active in Reports: 06/23/2021
Number of Days to Update: 83

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 09/28/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/02/2021
Date Data Arrived at EDR: 08/04/2021
Date Made Active in Reports: 11/02/2021
Number of Days to Update: 90

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/01/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 07/27/2021
Date Data Arrived at EDR: 07/28/2021
Date Made Active in Reports: 10/21/2021
Number of Days to Update: 85

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/11/2021
Date Data Arrived at EDR: 08/12/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 88

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/28/2021
Date Data Arrived at EDR: 05/28/2021
Date Made Active in Reports: 08/20/2021
Number of Days to Update: 84

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 11/23/2020
Date Made Active in Reports: 02/08/2021
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/05/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/31/2021
Next Scheduled EDR Contact: 02/13/2022
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/27/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/10/2021
Date Data Arrived at EDR: 08/11/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 89

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/10/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 08/31/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 08/04/2021
Date Data Arrived at EDR: 08/05/2021
Date Made Active in Reports: 10/29/2021
Number of Days to Update: 85

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/04/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/17/2021
Next Scheduled EDR Contact: 12/06/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/03/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 01/26/2021
Number of Days to Update: 82

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/23/2021
Date Made Active in Reports: 09/17/2021
Number of Days to Update: 86

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/09/2021
Next Scheduled EDR Contact: 12/12/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/02/2021
Date Data Arrived at EDR: 07/06/2021
Date Made Active in Reports: 07/14/2021
Number of Days to Update: 8

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 06/30/2021
Date Data Arrived at EDR: 06/30/2021
Date Made Active in Reports: 09/24/2021
Number of Days to Update: 86

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/14/2021
Next Scheduled EDR Contact: 01/03/2022
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 05/14/2021
Date Data Arrived at EDR: 05/17/2021
Date Made Active in Reports: 08/03/2021
Number of Days to Update: 78

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/06/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/25/2021
Date Data Arrived at EDR: 05/26/2021
Date Made Active in Reports: 08/18/2021
Number of Days to Update: 84

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/24/2021
Next Scheduled EDR Contact: 12/13/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 01/13/2021
Date Data Arrived at EDR: 01/14/2021
Date Made Active in Reports: 04/06/2021
Number of Days to Update: 82

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/14/2021
Date Data Arrived at EDR: 07/15/2021
Date Made Active in Reports: 10/06/2021
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/15/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 04/26/2021
Date Data Arrived at EDR: 04/28/2021
Date Made Active in Reports: 07/13/2021
Number of Days to Update: 76

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 11/01/2021
Next Scheduled EDR Contact: 02/14/2022
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/14/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 81

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/05/2021
Next Scheduled EDR Contact: 02/21/2022
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 07/19/2021
Date Made Active in Reports: 10/07/2021
Number of Days to Update: 80

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/18/2021
Next Scheduled EDR Contact: 01/31/2022
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2021
Date Data Arrived at EDR: 06/04/2021
Date Made Active in Reports: 08/27/2021
Number of Days to Update: 84

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/08/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/22/2021
Date Data Arrived at EDR: 06/28/2021
Date Made Active in Reports: 09/21/2021
Number of Days to Update: 85

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/23/2021
Next Scheduled EDR Contact: 01/10/2022
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 07/20/2021
Date Data Arrived at EDR: 07/20/2021
Date Made Active in Reports: 10/08/2021
Number of Days to Update: 80

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 10/22/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/23/2021
Date Data Arrived at EDR: 08/10/2021
Date Made Active in Reports: 11/08/2021
Number of Days to Update: 90

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2021
Next Scheduled EDR Contact: 11/22/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/05/2021
Next Scheduled EDR Contact: 01/17/2022
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/29/2021
Next Scheduled EDR Contact: 02/07/2022
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2021
Next Scheduled EDR Contact: 01/24/2022
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 02/11/2021
Date Made Active in Reports: 02/24/2021
Number of Days to Update: 13

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/11/2021
Next Scheduled EDR Contact: 11/29/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/01/2021
Next Scheduled EDR Contact: 12/20/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones 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
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

FORRESTER ROAD BRIDGE PHASE I ESA
FORRESTER BRIDGE
BRAWLEY, CA 92227

TARGET PROPERTY COORDINATES

Latitude (North):	32.922886 - 32° 55' 22.39"
Longitude (West):	115.621388 - 115° 37' 17.00"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	628904.1
UTM Y (Meters):	3643390.2
Elevation:	71 ft. below sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	12016213 BRAWLEY, CA
Version Date:	2018
West Map:	12008816 BRAWLEY NW, CA
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

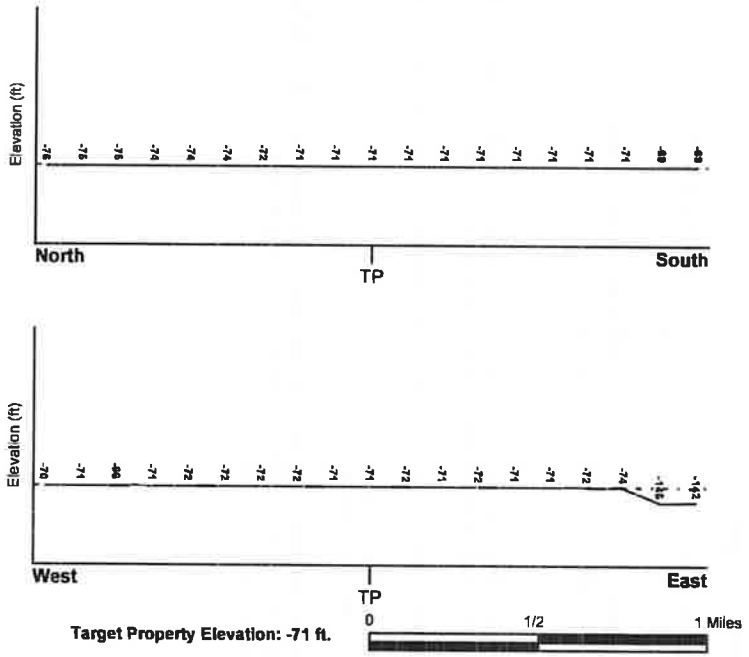
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General North

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06025C1375C	FEMA FIRM Flood data
Additional Panels in search area:	**FEMA Source Type**
06025C1350C	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BRAWLEY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

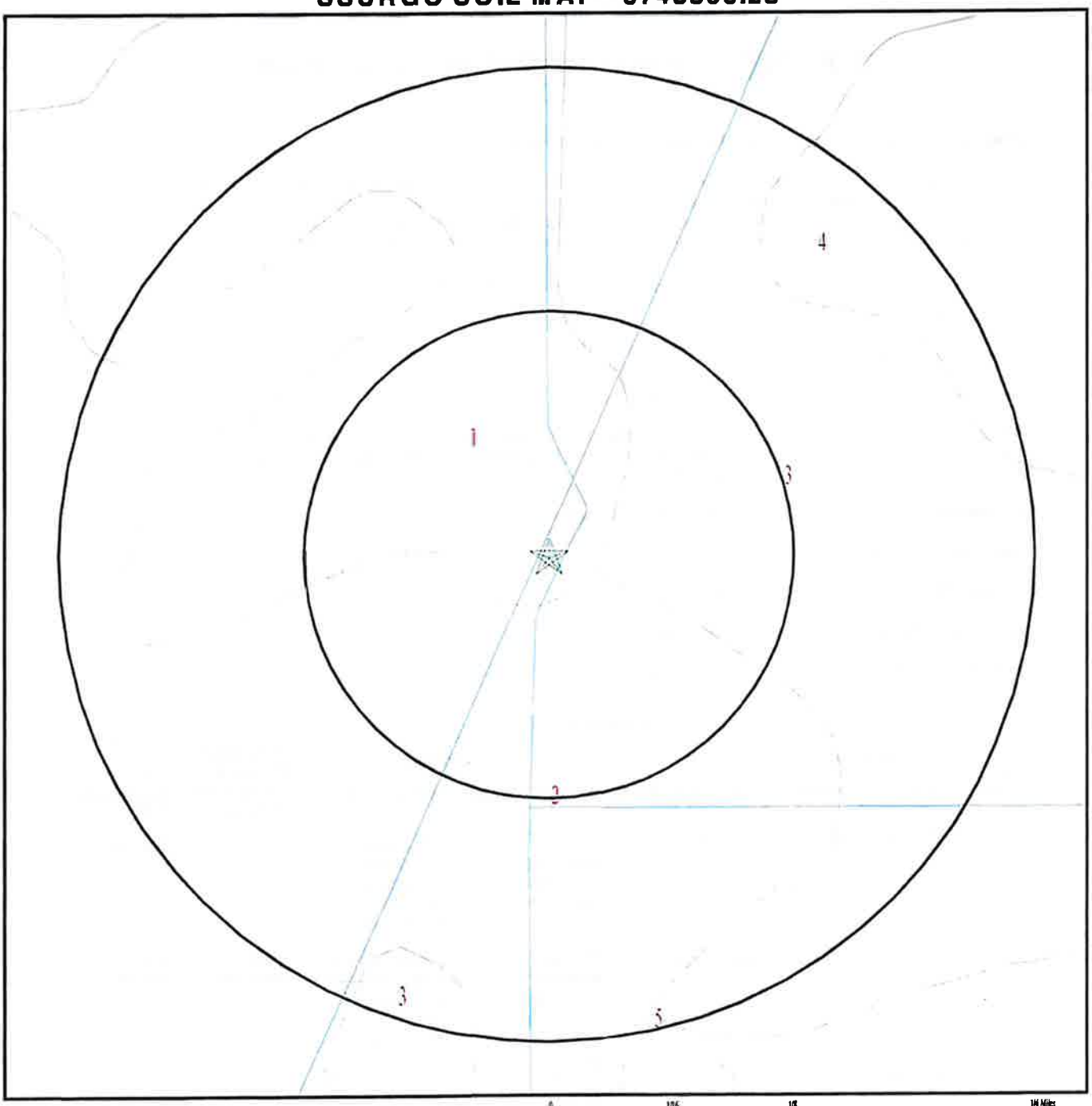
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6745806.2s



★ Target Property
SSURGO Soil
Water

SITE NAME:	Forrester Road Bridge Phase I ESA	CLIENT:	Universal Engineering Sciences
ADDRESS:	Forrester Bridge Brawley CA 92227	CONTACT:	Megan Hente
LAT/LONG:	32.922886 / 115.621388	INQUIRY #:	6745806.2s
		DATE:	November 11, 2021 5:06 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Vint

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
2	9 inches	40 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9
3	40 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 2

Soil Component Name: Meloland

Soil Surface Texture: very fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.4
2	11 inches	25 inches	stratified loamy fine sand to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.4
3	25 inches	70 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: Imperial

Soil Surface Texture: silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9
2	11 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Holtville

Soil Surface Texture: silty clay

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
2	16 inches	24 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
3	24 inches	35 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4
4	35 inches	59 inches	loamy very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 7.4

Soil Map ID: 5

Soil Component Name: Vint

Soil Surface Texture: loamy very fine sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 122 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	59 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

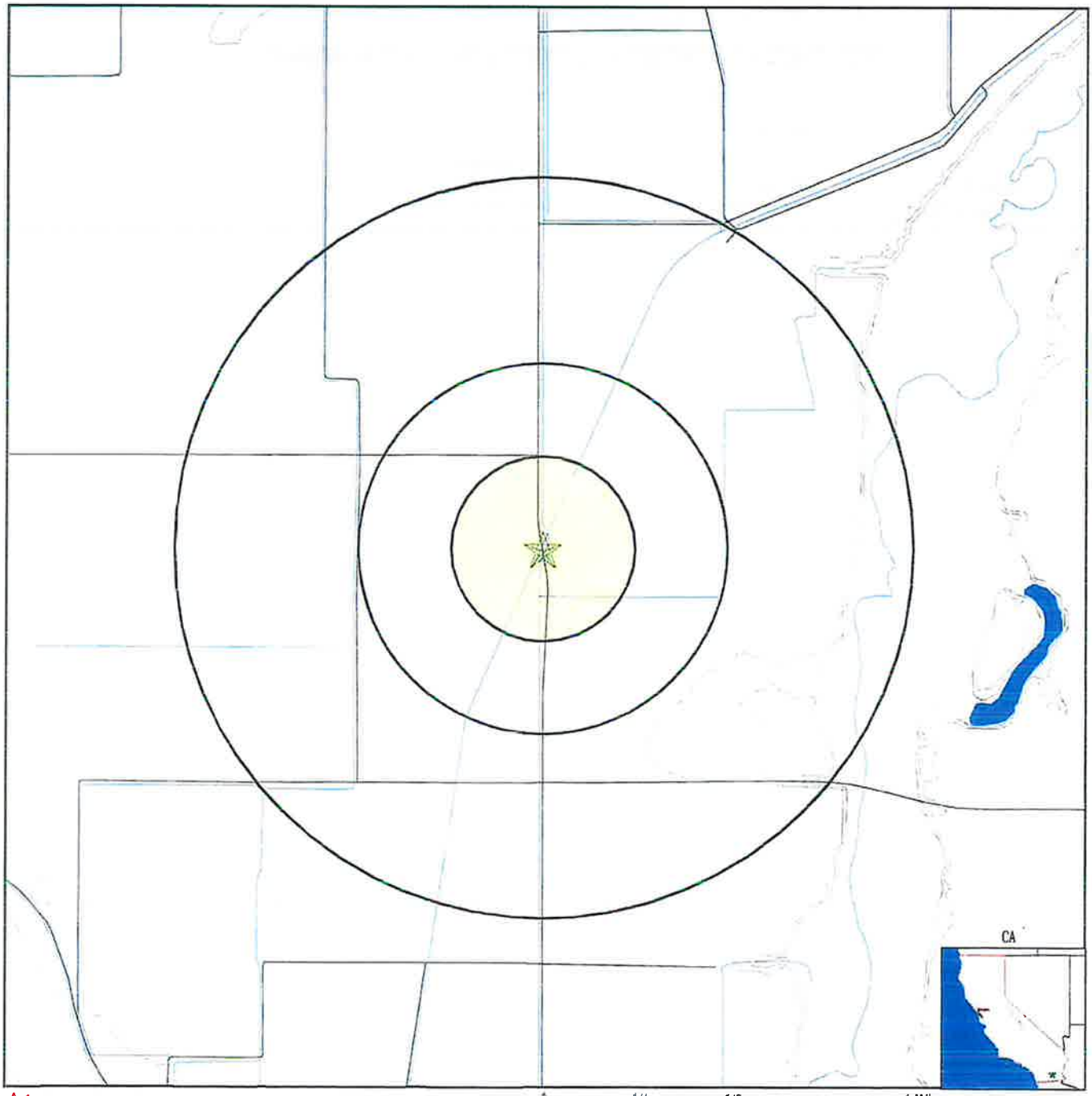
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 6745806.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Forrester Road Bridge Phase I ESA	CLIENT:	Universal Engineering Sciences
ADDRESS:	Forrester Bridge Brawley CA 92227	CONTACT:	Megan Hente
LAT/LONG:	32.922886 / 115.621388	INQUIRY #:	6745806.2s
		DATE:	November 11, 2021 5:06 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92227	4	0

Federal EPA Radon Zone for IMPERIAL County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92227

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.450 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones 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
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

APPENDIX D
EDR Aerial Photo Decade Package

Forrester Road Bridge Phase I ESA

Forrester Bridge

Brawley, CA 92227

Inquiry Number: 6745806.8

November 11, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EEC ORIGINAL PKG

EDR Aerial Photo Decade Package

11/11/21

Site Name:

Forrester Road Bridge Phase I
Forrester Bridge
Brawley, CA 92227
EDR Inquiry # 6745806.8

Client Name:

Universal Engineering Sciences
4480 West Hacienda Ave
Las Vegas, NV 89118
Contact: Megan Hente

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

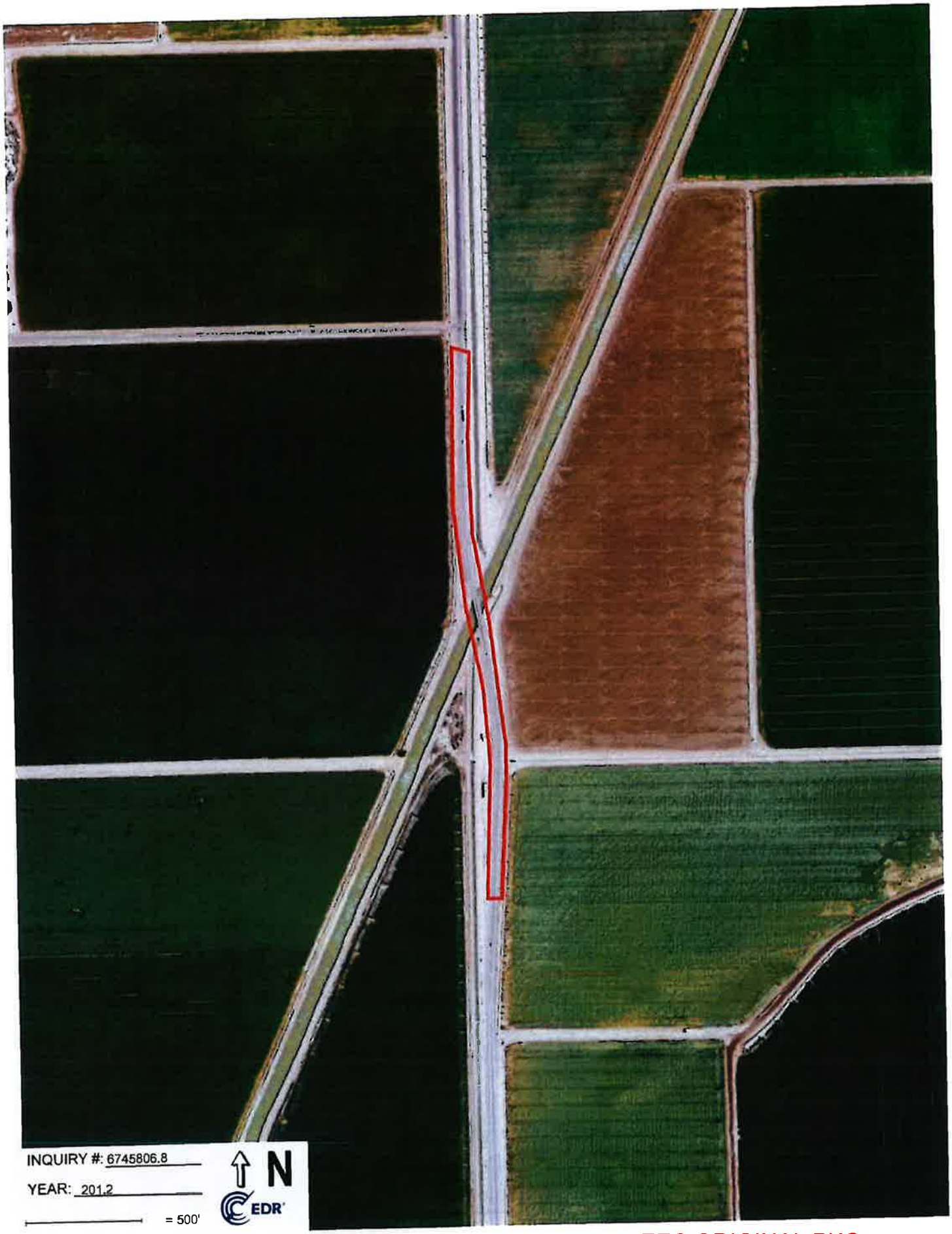
Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1996	1"=500'	Acquisition Date: June 16, 1996	USGS/DOQQ
1984	1"=500'	Flight Date: August 23, 1984	USDA
1976	1"=500'	Flight Date: October 12, 1976	USGS
1953	1"=500'	Flight Date: April 10, 1953	USDA
1949	1"=500'	Flight Date: February 22, 1949	USDA
1937	1"=500'	Flight Date: November 19, 1937	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

EEC ORIGINAL PKG

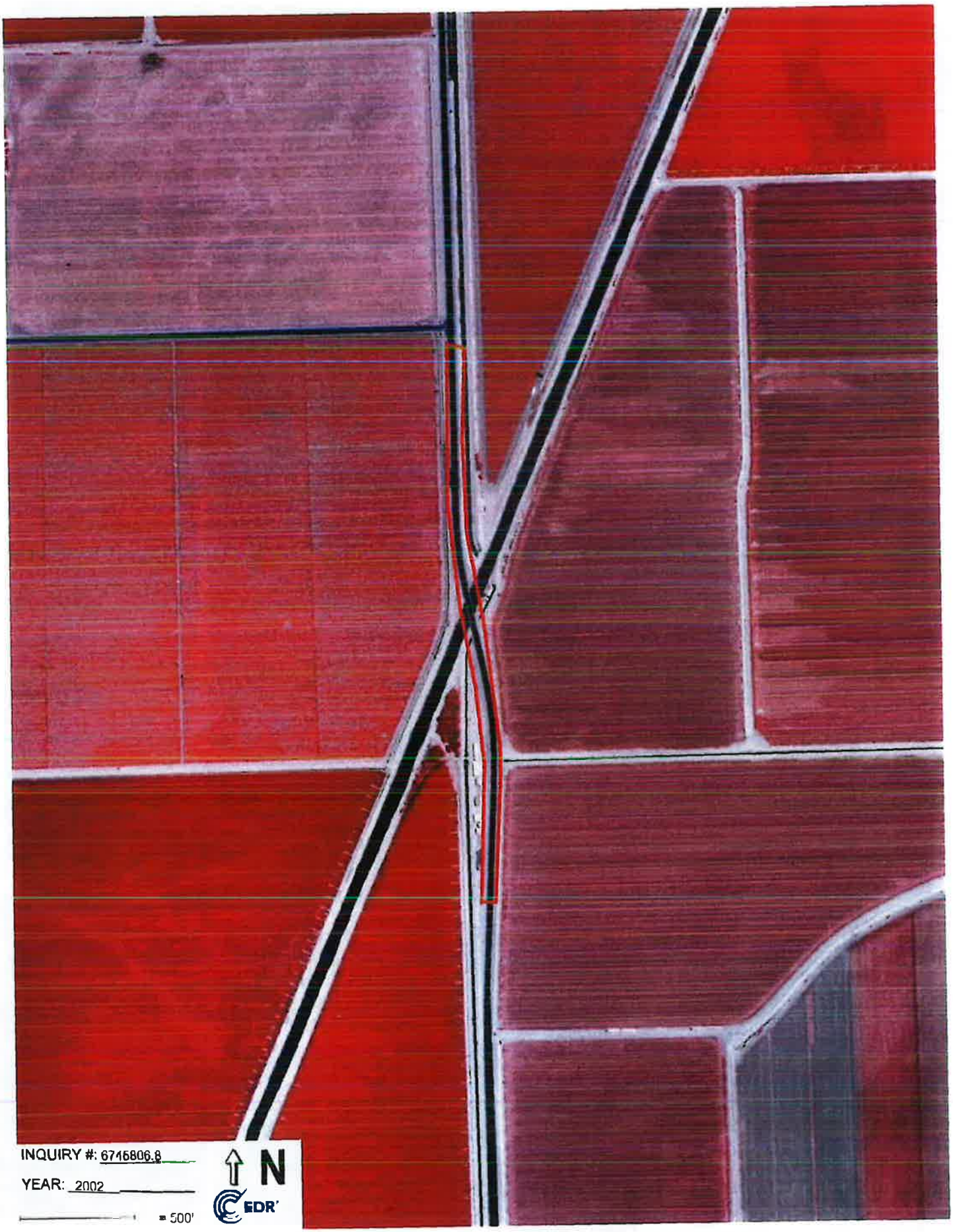
EEC ORIGINAL PKG



EEC ORIGINAL PKG

EEC ORIGINAL PKG

EEC ORIGINAL PKG



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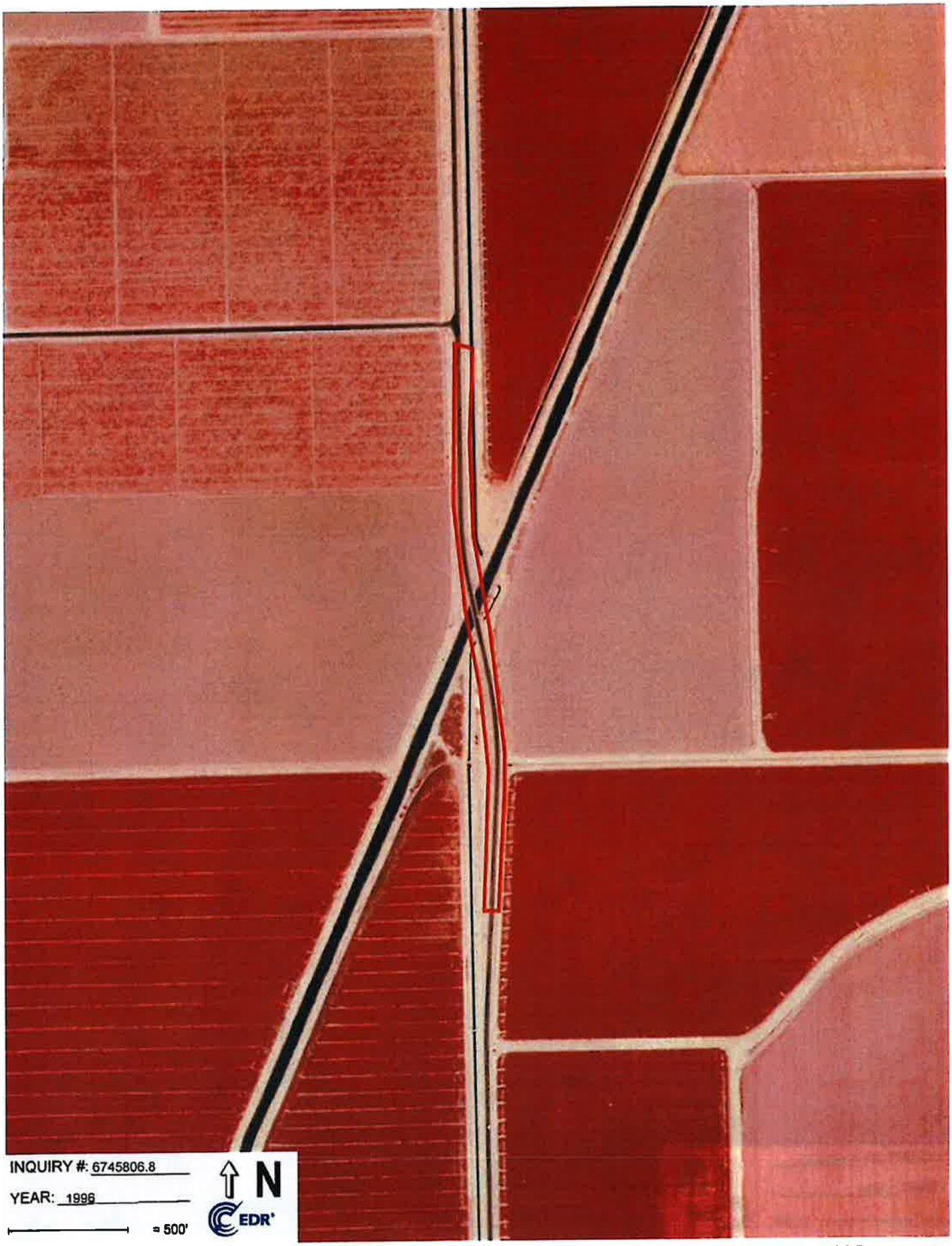

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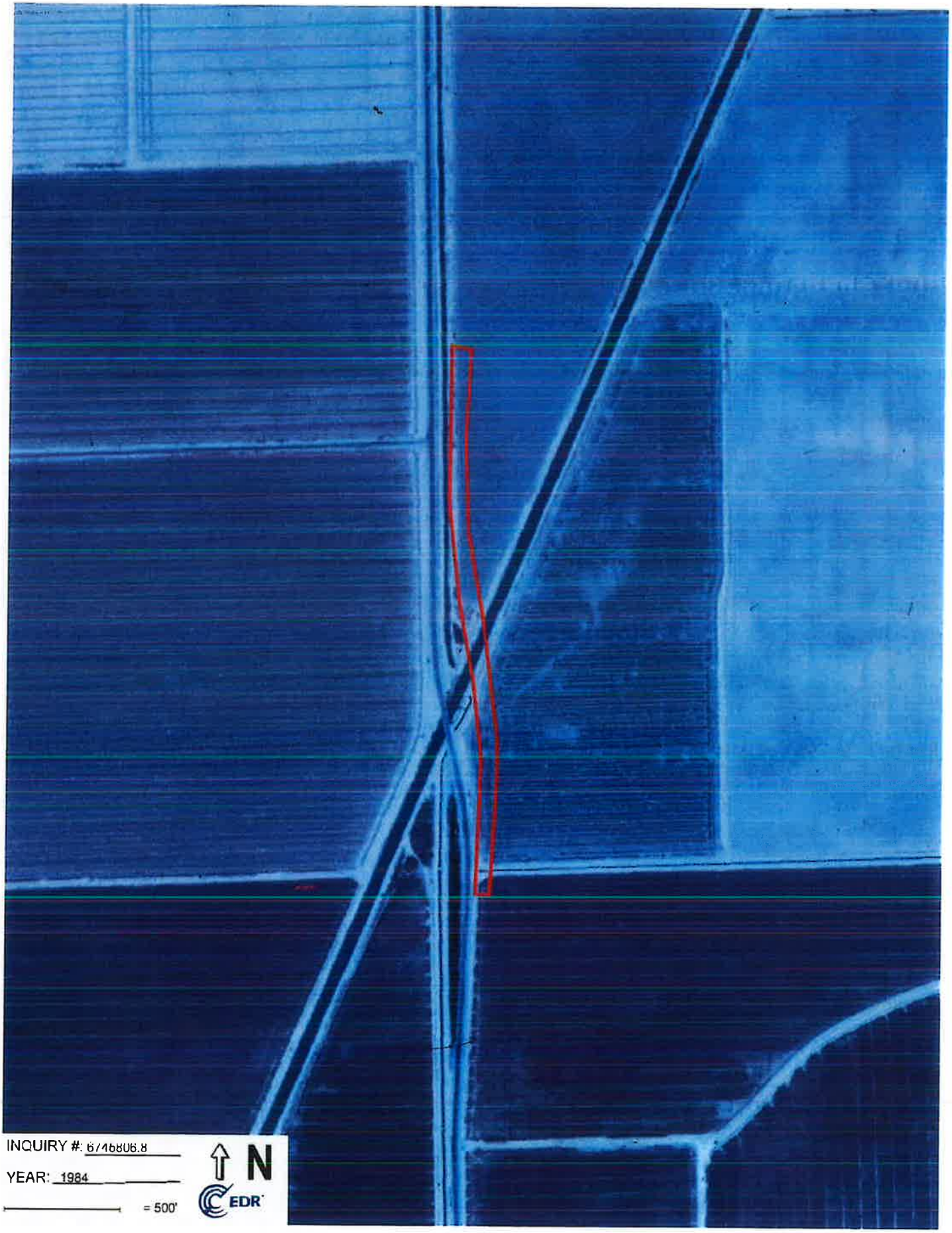

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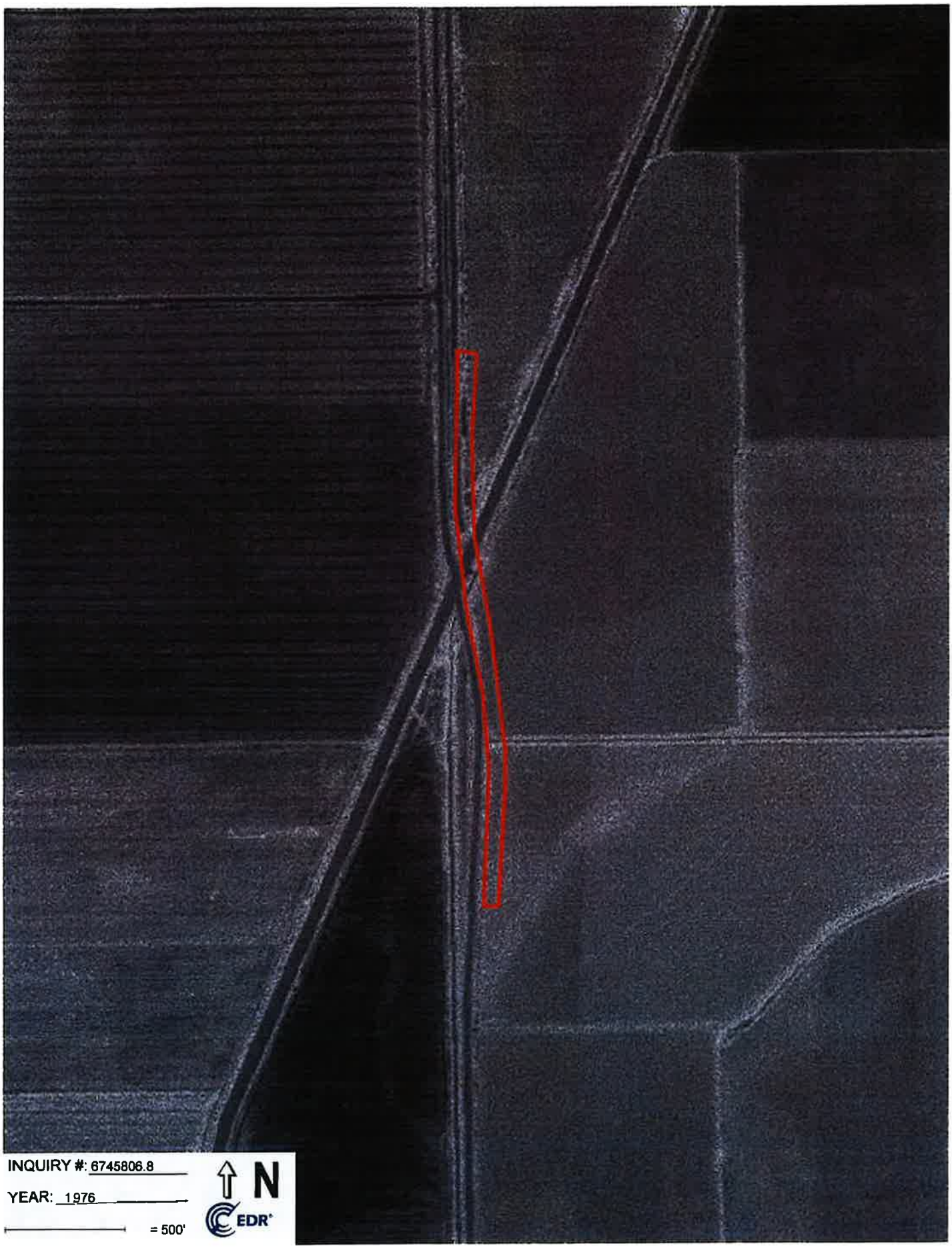
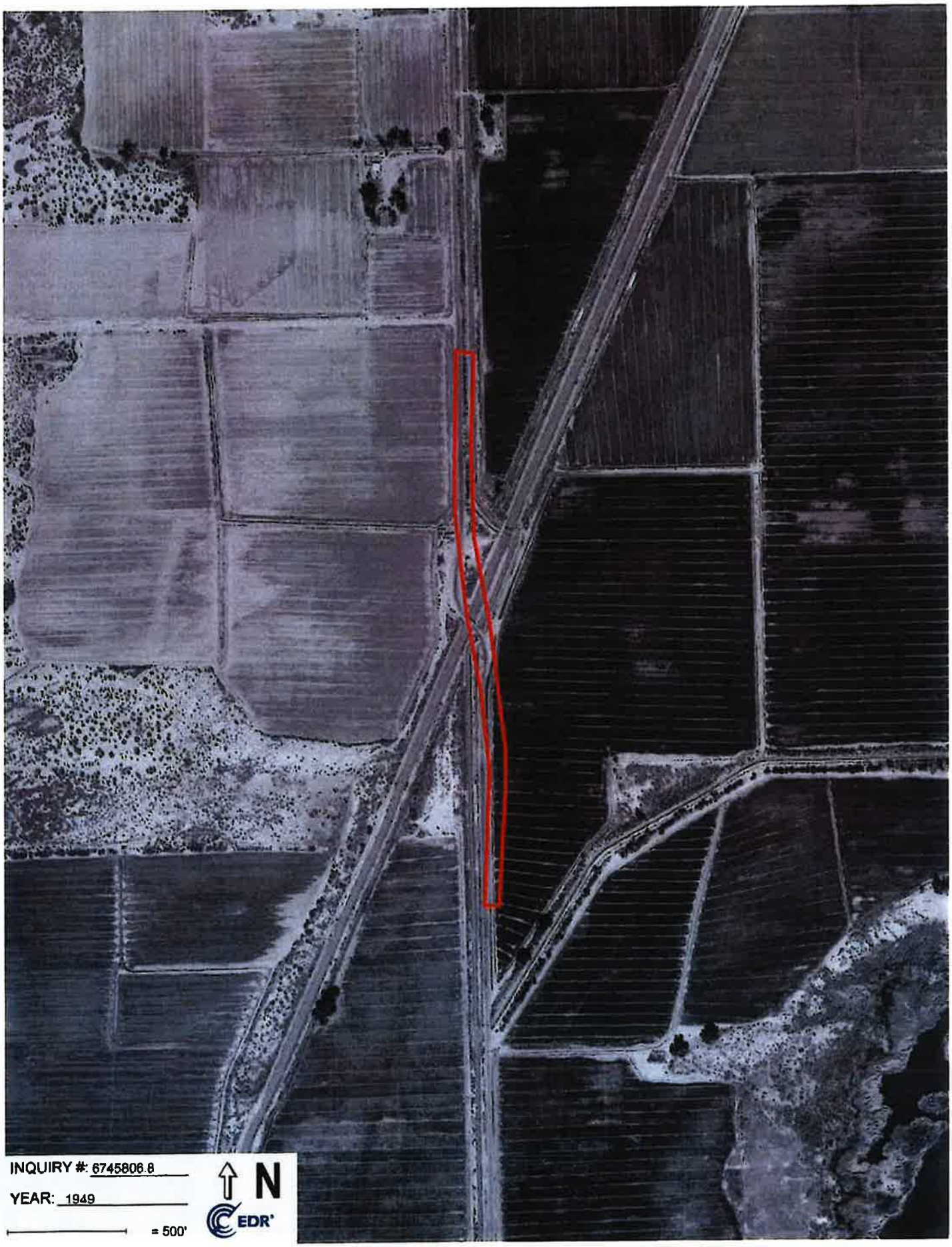


EEC ORIGINAL PKG

EEC ORIGINAL PKG



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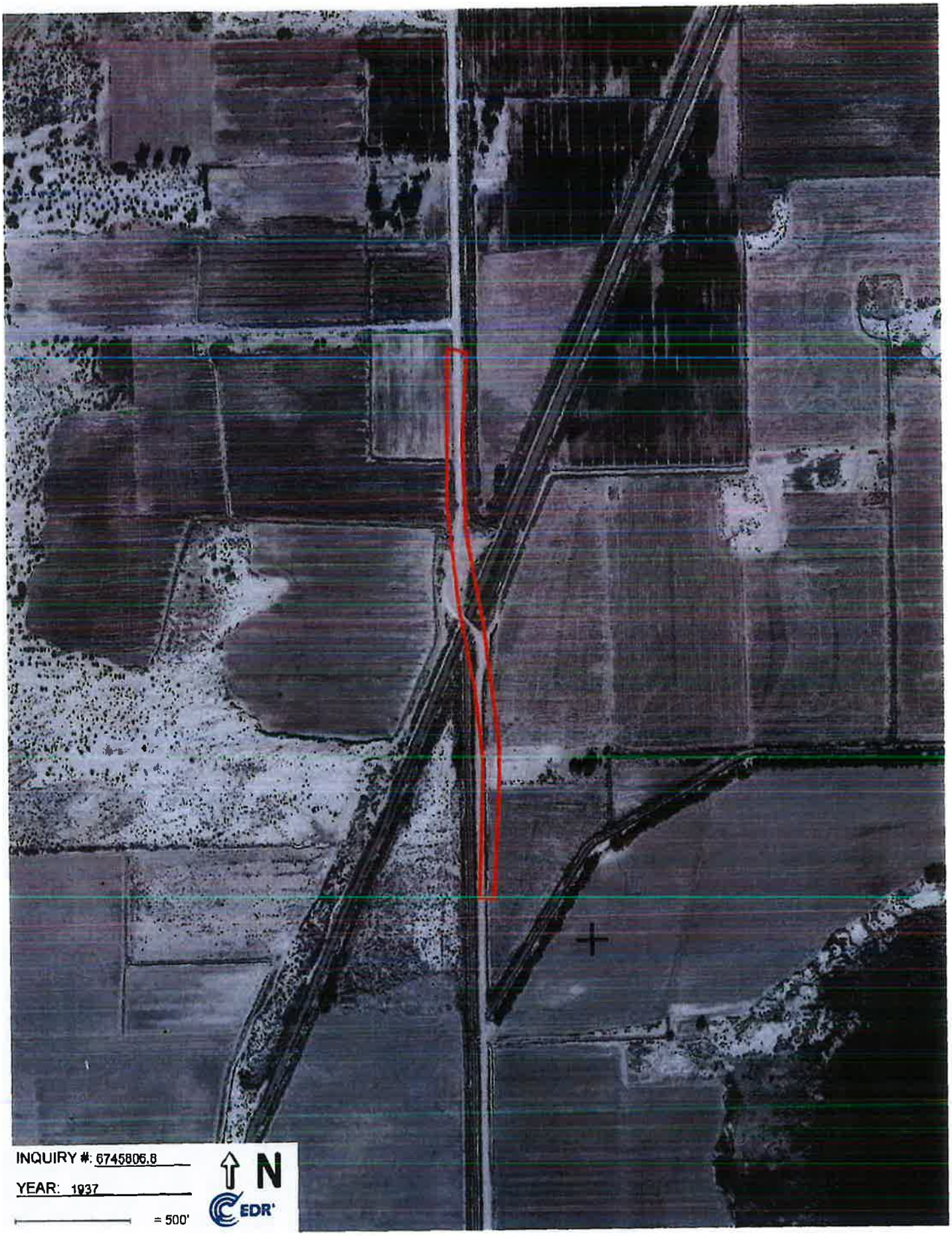


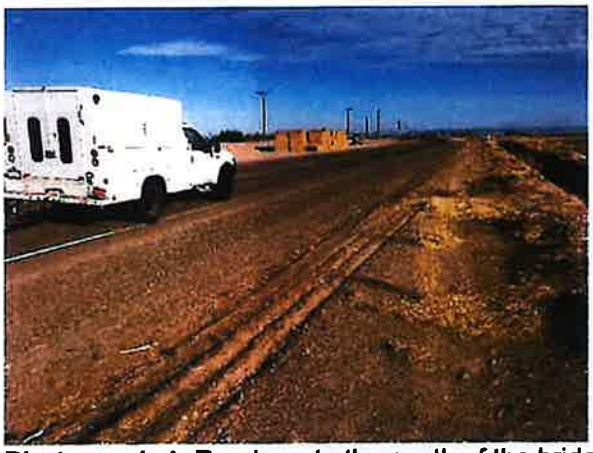
EEC ORIGINAL PKG

APPENDIX E
Photographic Log

Photograph 1: Looking at the bridge from the southeast.

Photograph 2: Looking at the bridge from the southeast.

Photograph 3: Looking at the bridge from the east.



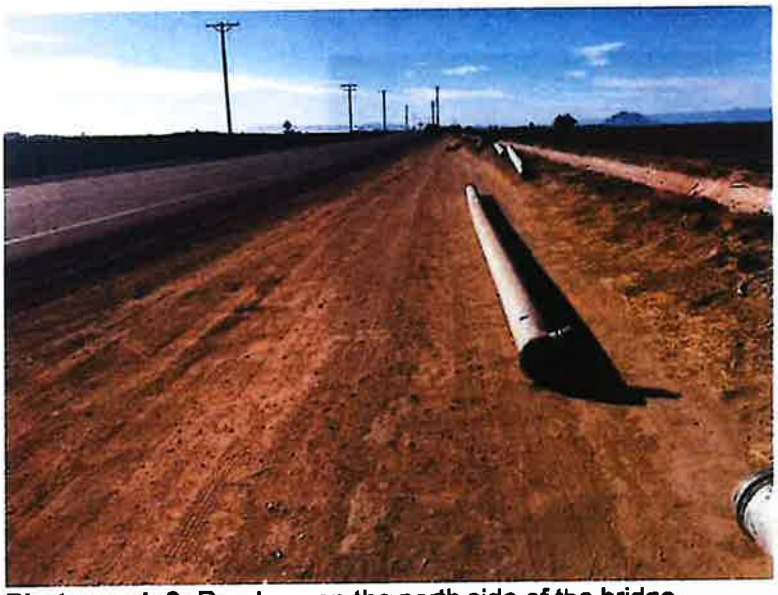
Photograph 4: Roadway to the south of the bridge.

Photograph 5: Roadway to the south of the bridge.

Photograph 6: West side of the bridge.

Photograph 7: Looking at the bridge from the northwest.

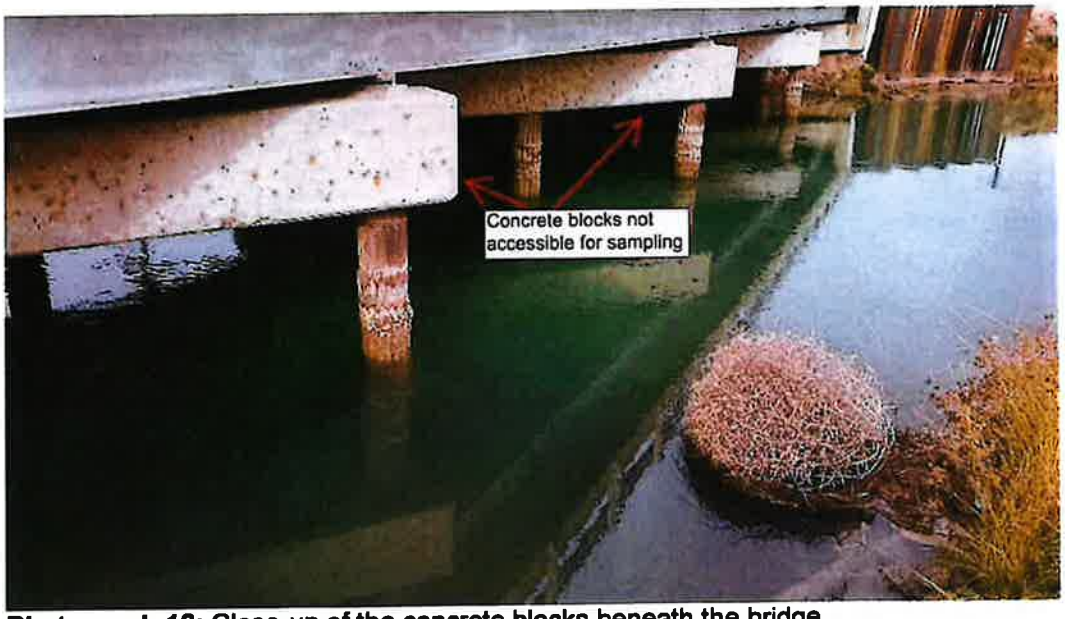
Photograph 8: Looking south at the Westside Canal.



Photograph 9: Roadway on the north side of the bridge.

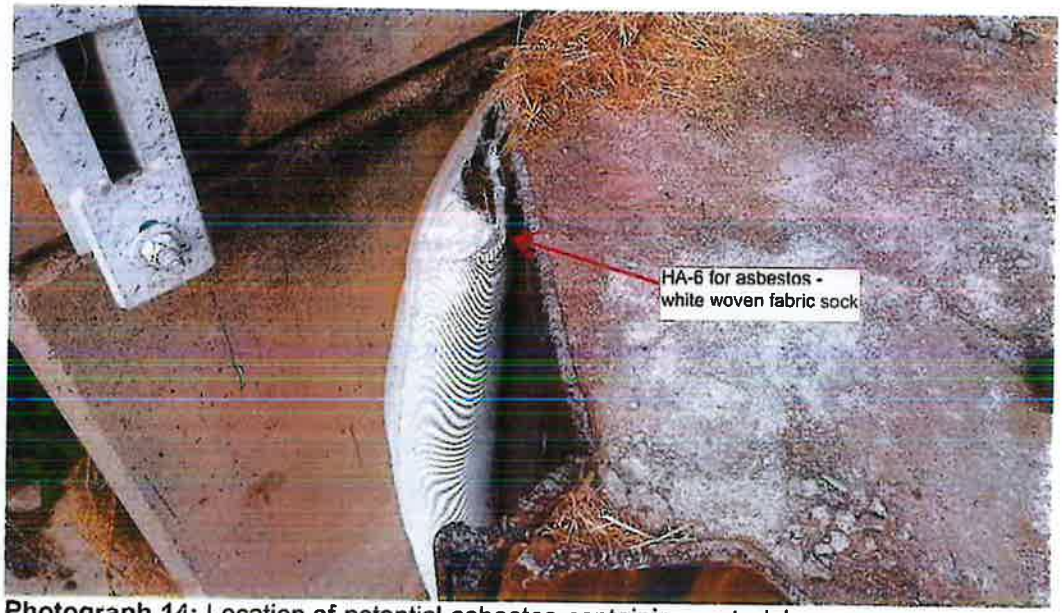
Photograph 10: Roadway on the north side of the bridge.

Photograph 11: Roadway on the north side of the bridge.



Photograph 12: Close-up of the concrete blocks beneath the bridge.

Photograph 13: Location of potential asbestos-containing material adjoining the bridge.



Photograph 14: Location of potential asbestos-containing material.

Photograph 15: Location of potential asbestos-containing material and potential lead-containing paint. Looking at the bridge from the southeast.

Photograph 16: Location of potential lead-containing paint.

Photograph 17: Location of potential-asbestos containing material.

Photograph 18: Location of wood samples.

Photograph 19: Location of striped paint samples.

Photograph 20: Location of striped paint samples.

APPENDIX F

Orange Coast Analytical, Inc. Reports

EMSL Analytical, Inc.
8145 Ronson Road, Suite B San Diego, CA 92111
Tel/Fax: (858) 499-1303 / (858) 499-1304
**********.EMSL.com / sandiegolab@emsl.com

EMSL Order:	432109927
Customer ID:	XVET75
Customer PO:	
Project ID:	

Attention: Brandon Alderson
iVet Environmental, Inc.
2534 State Street, Suite 311
San Diego, CA 92101

Phone:	(714) 326-4579
Fax:	
Received Date:	12/21/2021 4:16 PM
Analysis Date:	12/29/2021
Collected Date:	12/21/2021

Project: PSI SAMPLING AT BRIDGE NO. 58C - 0014 / 2021 - ES029

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
A - 01 *432109927-0001*	S.E. CORNER OF BRIDGE - BLACK FIBER SHIMS BETWEEN CONCRETE	Brown/Black Fibrous Homogeneous	60% Cellulose HA: 1	40% Non-fibrous (Other)	None Detected
A - 02 *432109927-0002*	N.E. CORNER OF BRIDGE - BLACK FIBER SHIMS BETWEEN CONCRETE	Brown/Black Fibrous Homogeneous	60% Cellulose HA: 1	40% Non-fibrous (Other)	None Detected
A - 03 *432109927-0003*	N.W. CORNER OF BRIDGE - BLACK FIBER SHIMS BETWEEN CONCRETE	Brown Fibrous Homogeneous	80% Cellulose HA: 1	20% Non-fibrous (Other)	None Detected
A - 03 (D) *432109927-0004*	N.W. CORNER OF BRIDGE - BLACK FIBER SHIMS BETWEEN CONCRETE	Brown Fibrous Homogeneous	60% Cellulose HA: 1	40% Non-fibrous (Other)	None Detected
A - 04 *432109927-0005*	S.E. CORNER OF ROAD ON BRIDGE - BLACK ROAD ASPHALT	Black Non-Fibrous Homogeneous	HA: 2	100% Non-fibrous (Other)	None Detected
A - 05 *432109927-0006*	S.W. CORNER OF ROAD ON BRIDGE - BLACK ROAD ASPHALT	Black Non-Fibrous Homogeneous	HA: 2	100% Non-fibrous (Other)	None Detected
A - 06 *432109927-0007*	N.E. CORNER OF ROAD ON BRIDGE - BLACK ROAD ASPHALT	Black Non-Fibrous Homogeneous	HA: 2	100% Non-fibrous (Other)	None Detected
A - 07 *432109927-0008*	S.W. CORNER OF BRDIGE - GREY BRIDGE CONCRETE	Gray Non-Fibrous Homogeneous	HA: 3	100% Non-fibrous (Other)	None Detected
A - 08 *432109927-0009*	N.E.. CORNER OF BRDIGE - GREY BRIDGE CONCRETE	Gray Non-Fibrous Homogeneous	HA: 3	100% Non-fibrous (Other)	None Detected
A - 09 *432109927-0010*	S.E. CORNER OF BRDIGE - GREY BRIDGE CONCRETE	Gray Non-Fibrous Homogeneous	HA: 3	100% Non-fibrous (Other)	None Detected

Initial report from: 12/29/2021 19:36:48

EMSL Analytical, Inc.
8145 Ronson Road, Suite B San Diego, CA 92111
Tel/Fax: (858) 499-1303 / (858) 499-1304
**********.EMSL.com / sandiegolab@emsl.com

EMSL Order: 432109927
Customer ID: XVET75
Customer PO:
Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
A - 09 (D) *432109927-0011*	S.E. CORNER OF BRDIGE - GREY BRIDGE CONCRETE	Gray Non-Fibrous Homogeneous	HA: 3	100% Non-fibrous (Other)	None Detected
A - 10 *432109927-0012*	S.E. CORNER OF BRIDGE - GREY CONCRETE SLURRY (NO AGGEGATE)	Gray Non-Fibrous Homogeneous	HA: 4	100% Non-fibrous (Other)	None Detected
A - 11 *432109927-0013*	S.W. CORNER OF BRIDGE - GREY CONCRETE SLURRY (NO AGGEGATE)	Gray Non-Fibrous Homogeneous	HA: 4	100% Non-fibrous (Other)	None Detected
A - 12 *432109927-0014*	N.W. CORNER OF BRIDGE - GREY CONCRETE SLURRY (NO AGGEGATE)	Gray Non-Fibrous Homogeneous	HA: 4	100% Non-fibrous (Other)	None Detected
A - 13 *432109927-0015*	S.W. CORNER OF BRIDGE - BLACK ASPHALT PAPER BELOW BRIDGE	Black Fibrous Homogeneous	60% Cellulose HA: 5	40% Non-fibrous (Other)	None Detected
A - 14 *432109927-0016*	S.W. CORNER FURTHER UNDER BRIDGE - BLACK ASPHALT PAPER BELOW BRIDGE	Black Fibrous Homogeneous	50% Cellulose HA: 5	50% Non-fibrous (Other)	None Detected
A - 15 *432109927-0017*	N.E. CORNER OF BRIDGE - BLACK ASPHALT PAPER BELOW BRIDGE	Black Fibrous Homogeneous	60% Cellulose HA: 5	40% Non-fibrous (Other)	None Detected
A - 16-Sock *432109927-0018*	N.E. CORNER NEAR CHANNEL - WHITE FABRIC SOCK & YELLOW FABRIC LAYER	White Fibrous Homogeneous	90% Synthetic HA: 6	10% Non-fibrous (Other)	None Detected
A - 16-Fabric *432109927-0018A*	N.E. CORNER NEAR CHANNEL - WHITE FABRIC SOCK & YELLOW FABRIC LAYER	Yellow Fibrous Homogeneous	90% Synthetic HA: 6	10% Non-fibrous (Other)	None Detected
A - 17 *432109927-0019*	N.E. CORNER ON CONCRETE PAD- WHITE FABRIC SOCK w/o YELLOW FABRIC LAYER	White Fibrous Homogeneous	95% Synthetic HA: 6	5% Non-fibrous (Other)	None Detected

Initial report from: 12/29/2021 19:36:48

EEC ORIGINAL PKG

EMSL Analytical, Inc.
8145 Ronson Road, Suite B San Diego, CA 92111
Tel/Fax: (858) 499-1303 / (858) 499-1304
**********.EMSL.com / sandiegolab@emsl.com

EMSL Order:	432109927
Customer ID:	XVET75
Customer PO:	
Project ID:	

Analyst(s)
Alberto Guerrero (6)
Eric Sun (8)
Riva Alger (6)

Mariah Curran, Laboratory Manager
or Other Approved Signatory

Initial report from: 12/29/2021 19:36:48

EEC ORIGINAL PKG

LA Testing
5431 Industrial Drive, Huntington Beach, CA 92649
Phone/Fax: (714) 828-4999 / (714) 828-4944
LATesting.com gardengrovelab@latesting.com

LA Testing Order: 332131119
CustomerID: XVET75
CustomerPO:
ProjectID:

Attn: **Brandon Alderson**
iVet Environmental, Inc.
2534 State Street, Suite 311
San Diego, CA 92101

Phone: (714) 326-4579
Fax:
Received: 12/23/2021 01:00 PM
Collected:

Project: **PSI Sampling at Bridge 58C-0014**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client SampleDescription	Collected	Analyzed	Weight	RDL	Lead Concentration
L-01 *332131119-0001*	Site: SW corner of bridge	12/29/2021	0.2562 g	16000 ppm	460000 ppm
L-02 *332131119-0002*	Site: SW corner further under bridge	12/29/2021	0.2809 g	16000 ppm	440000 ppm
L-03 *332131119-0003*	Site: NE corner of bridge	12/29/2021	0.2686 g	16000 ppm	480000 ppm
L-04 *332131119-0004*	Site: SE corner of bridge	12/29/2021	0.2518 g	80 ppm	140 ppm
L-05 *332131119-0005*	Site: SW corner of bridge	12/29/2021	0.2752 g	80 ppm	<80 ppm
L-06 *332131119-0006*	Site: NE corner of bridge	12/29/2021	0.2677 g	80 ppm	<80 ppm
L-07 *332131119-0007*	Site: NW corner of bridge	12/29/2021	0.2618 g	80 ppm	<80 ppm
L-08 *332131119-0008*	Site: West side of bridge middle	12/29/2021	0.2596 g	80 ppm	<80 ppm
L-09 *332131119-0009*	Site: SE corner of bridge	12/29/2021	0.2869 g	80 ppm	<80 ppm

Michael Chapman

Michael Chapman, Laboratory Manager
or other approved signatory

Initial report from 12/29/2021 11:26:35

EEC ORIGINAL PKG

LA Testing
5431 Industrial Drive, Huntington Beach, CA 92649
Phone: (714) 828-4999 Fax: (714) 828-4944 Email: gardengrovelab@latesting.com

1/3/2022

Attn: **Brandon Alderson**
iVet Environmental, Inc.
2534 State Street, Suite 311
San Diego, CA 92101
Phone: (714) 326-4579
Fax:

The following analytical report covers the analysis performed on samples submitted to LA Testing on 12/23/2021. The results are tabulated on the attached data pages for the following client designated project:

PSI Sampling at Bridge No. 58C -0014

The reference number for these samples is EMSL Order #332130952. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (714) 828-4999.

Approved By:

Michael Chapman

Michael Chapman, Laboratory Manager

EEC ORIGINAL PKG

LA Testing
5431 Industrial Drive, Huntington Beach, CA 92649
Phone/Fax: (714) 828-4999 / (714) 828-4944
LATesting.com gardengrovelab@latesting.com

LA Testing Order: 332130952
CustomerID: XVET75
CustomerPO:
ProjectID:

Attn: **Brandon Alderson**
IVet Environmental, Inc.
2534 State Street, Suite 311
San Diego, CA 92101

Phone: (714) 326-4579
Fax:
Received: 12/23/2021 01:00 PM
Collected: 12/21/2021

Project: **PSI Sampling at Bridge No. 58C -0014**

Analytical Results

Client Sample Description TS-01
SE Corner of bridge
Collected: 12/21/2021 **Lab ID:** 332130952-0001

Method	Parameter	Result	RL	Units	Prep Date & Analyst		Analysis Date & Analyst	
METALS								
3050B/6010D	Chromium	ND	4.8	mg/Kg	1/3/2022	cc	1/3/2022 14:18	TH
3050B/6010D	Lead	ND	4.8	mg/Kg	1/3/2022	cc	1/3/2022 14:18	TH

Client Sample Description TS-02
S end of bridge
Collected: 12/21/2021 **Lab ID:** 332130952-0002

Method	Parameter	Result	RL	Units	Prep Date & Analyst		Analysis Date & Analyst	
METALS								
3050B/6010D	Chromium	ND	4.9	mg/Kg	1/3/2022	cc	1/3/2022 14:20	TH
3050B/6010D	Lead	ND	4.9	mg/Kg	1/3/2022	cc	1/3/2022 14:20	TH

Client Sample Description TS-03
N end of bridge
Collected: 12/21/2021 **Lab ID:** 332130952-0003

Method	Parameter	Result	RL	Units	Prep Date & Analyst		Analysis Date & Analyst	
METALS								
3050B/6010D	Chromium	ND	4.8	mg/Kg	1/3/2022	cc	1/3/2022 14:23	TH
3050B/6010D	Lead	ND	4.8	mg/Kg	1/3/2022	cc	1/3/2022 14:23	TH

Definitions:
MDL - method detection limit
J - Result was below the reporting limit, but at or above the MDL
ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit (Analytical)
D - Dilution Sample required a dilution which was used to calculate final results

EEC ORIGINAL PKG

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.:2576
Expiration Date: 2023
Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:
Mark Noorani

Client:	Construction Testing & Engineering, Inc.
Laboratory Reference:	CTE 26620
Project Name:	PSI Sampling at Bridge 58C-0014
Project Number:	2021-ES029
Date Received:	12/22/2021
Date Reported:	1/3/2022
Chain of Custody Received:	☑
Analytical Method:	8015B, 8081A, 8082, 8015M, 8151A, 8260B, 8270C, 6010B, 7471A,

Mark Noorani, Laboratory Director

Rev1.0

EEC ORIGINAL PKG

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Case Narrative

Sample Receipt:

All samples on the Chain of Custody were received by OCA at 2°C, on ice.
shipped with GLS

Holding Times:

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

Analytical Methods:

Sample analysis was performed following the analytical methods listed on the cover page.

Data Qualifiers:

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

Definition of Terms:

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

Comments:

None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Client Sample Summary

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-01	26620-001	12/22/2021	12/21/2021	Soil
SS-02	26620-002	12/22/2021	12/21/2021	Soil
SS-03	26620-003	12/22/2021	12/21/2021	Soil
SS-04	26620-004	12/22/2021	12/21/2021	Soil
SS-05	26620-005	12/22/2021	12/21/2021	Soil
SS-06	26620-006	12/22/2021	12/21/2021	Soil
TW-01	26620-007	12/22/2021	12/21/2021	Soil
TW-02	26620-008	12/22/2021	12/21/2021	Soil

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Gasoline Range Organics - GROs (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/23/2021 9:30	12/23/2021 12:03	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	67

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 63-130 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/23/2021 9:30	12/23/2021 12:22	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	98

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 63-130 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/23/2021 9:30	12/23/2021 12:42	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	91

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 63-130 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/23/2021 9:30	12/23/2021 13:01	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	97

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 63-130 %

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/23/2021 9:30	12/23/2021 13:21	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	98

Dilution Factor: 1
Data Qualifiers: None
* Acceptable Recovery: 63-130 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Gasoline Range Organics - GROs (EPA 8015B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/23/2021 9:30	12/23/2021 13:41	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	69

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 63-130 %

Method Blank	MBLY1223211		12/23/2021 9:30	12/23/2021 10:21	Soil

ANALYTE	mg/kg	Surrogate:	% RC*
GROs[1]	<0.20	α-α-α-Trifluorotoluene	97

Dilution Factor: 1
Data Qualifiers: None

* Acceptable Recovery: 63-130 %

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/28/2021 17:00	12/30/2021 10:26	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<16
alpha-BHC	319-84-6	<40
beta-BHC	319-85-7	<40
gamma-BHC (Lindane)	58-89-9	<40
delta-BHC	319-86-8	<80
Chlordane	57-74-9	<240
4,4'-DDD	72-54-8	<80
4,4'-DDE	72-55-9	<40
4,4' DDT	50 29 3	<80
Dieldrin	60-57-1	<16
Endosulfan I	959-98-8	<80
Endosulfan II	33213-65-9	<40
Endosulfan sulfate	1031-07-8	<80
Endrin	72-20-8	<80
Endrin aldehyde	7421-93-4	<80
Endrin ketone	53494-70-5	<40
Heptachlor	76-44-8	<16
Heptachlor epoxide	1024-57-3	<40
Methoxychlor	72-43-5	<80
Toxaphene	8001-35-2	<320

Surrogate:	% RC*
Decachlorobiphenyl	57

* Acceptable Recovery: 48-135 %

Dilution Factor: 8
Data Qualifiers: D1,

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/28/2021 17:00	12/30/2021 10:42	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<16
alpha-BHC	319-84-6	<40
beta-BHC	319-85-7	<40
gamma-BHC (Lindane)	58-89-9	<40
delta-BHC	319-86-8	<80
Chlordane	57-74-9	<240
4,4'-DDD	72-54-8	<80
4,4'-DDE	72-55-9	<40
4,4'-DDT	50-29-3	<80
Dieldrin	60-57-1	<16
Endosulfan I	959-98-8	<80
Endosulfan II	33213-65-9	<40
Endosulfan sulfate	1031-07-8	<80
Endrin	72-20-8	<80
Endrin aldehyde	7421-93-4	<80
Endrin ketone	53494-70-5	<40
Heptachlor	76-44-8	<16
Heptachlor epoxide	1024-57-3	<40
Methoxychlor	72-43-5	<80
Toxaphene	8001-35-2	<320

Surrogate:	% RC*
Decachlorobiphenyl	54

* Acceptable Recovery: 48-135 %

Dilution Factor: 8
Data Qualifiers: D1.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/28/2021 17:00	12/30/2021 10:57	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<16
alpha-BHC	319-84-6	<40
beta-BHC	319-85-7	<40
gamma-BHC (Lindane)	58-89-9	<40
delta-BHC	319-86-8	<80
Chlordane	57-74-9	<240
4,4'-DDD	72-54-8	<80
4,4'-DDE	72-55-9	<40
4,4'-DDT	50-29-3	<80
Dieldrin	60-57-1	<16
Endosulfan I	959-98-8	<80
Endosulfan II	33213-65-9	<40
Endosulfan sulfate	1031-07-8	<80
Endrin	72-20-8	<80
Endrin aldehyde	7421-93-4	<80
Endrin ketone	53494-70-5	<40
Heptachlor	76-44-8	<16
Heptachlor epoxide	1024-57-3	<40
Methoxychlor	72-43-5	<80
Toxaphene	8001-35-2	<320

Surrogate:	% RC*
Decachlorobiphenyl	54

* Acceptable Recovery: 48-135 %

Dilution Factor: 8
Data Qualifiers: D1.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/28/2021 17:00	12/30/2021 11:12	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<16
alpha-BHC	319-84-6	<40
beta-BHC	319-85-7	<40
gamma-BHC (Lindane)	58-89-9	<40
delta-BHC	319-86-8	<80
Chlordane	57-74-9	<240
4,4'-DDD	72-54-8	<80
4,4'-DDE	72-55-9	<40
4,4'-DDT	50-29-3	<80
Dieldrin	60-57-1	<16
Endosulfan I	959-98-8	<80
Endosulfan II	33213-65-9	<40
Endosulfan sulfate	1031-07-8	<80
Endrin	72-20-8	<80
Endrin aldehyde	7421-93-4	<80
Endrin ketone	53494-70-5	<40
Heptachlor	76-44-8	<16
Heptachlor epoxide	1024-57-3	<40
Methoxychlor	72-43-5	<80
Toxaphene	8001-35-2	<320

Surrogate:	% RC*
Decachlorobiphenyl	60

* Acceptable Recovery: 48-135 %

Dilution Factor: 8
Data Qualifiers: D1,

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/28/2021 17:00	12/30/2021 11:27	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<4.0
alpha-BHC	319-84-6	<10
beta-BHC	319-85-7	<10
gamma-BHC (Lindane)	58-89-9	<10
delta-BHC	319-86-8	<20
Chlordane	57-74-9	<60
4,4'-DDD	72-54-8	<20
4,4'-DDE	72-55-9	14
4,4'-DDT	50-29-3	<20
Dieldrin	60-57-1	<4.0
Endosulfan I	959-98-8	<20
Endosulfan II	33213-65-9	<10
Endosulfan sulfate	1031-07-8	<20
Endrin	72-20-8	<20
Endrin aldehyde	7421-93-4	<20
Endrin ketone	53494-70-5	<10
Heptachlor	76-44-8	<4.0
Heptachlor epoxide	1024-57-3	<10
Methoxychlor	72-43-5	<20
Toxaphene	8001-35-2	<80

Surrogate:	% RC*
Decachlorobiphenyl	63

* Acceptable Recovery: 48-135 %

Dilution Factor: 2

Data Qualifiers: D1.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/28/2021 17:00	12/30/2021 11:42	Soil

ANALYTE	CAS #	µg/kg
Aldrin	309-00-2	<8.0
alpha-BHC	319-84-6	<20
beta-BHC	319-85-7	<20
gamma-BHC (Lindane)	58-89-9	<20
delta-BHC	319-86-8	<40
Chlordane	57-74-9	<120
4,4'-DDD	72-54-8	<40
4,4'-DDE	72-55-9	<20
4,4'-DDT	50-29-3	<40
Dieldrin	60-57-1	<8.0
Endosulfan I	959-98-8	<40
Endosulfan II	33213-65-9	<20
Endosulfan sulfate	1031-07-8	<40
Endrin	72-20-8	<40
Endrin aldehyde	7421-93-4	<40
Endrin ketone	53494-70-5	<20
Heptachlor	76-44-8	<8.0
Heptachlor epoxide	1024-57-3	<20
Methoxychlor	72-43-5	<40
Toxaphene	8001-35-2	<160

Surrogate:	% RC*
Decachlorobiphenyl	55

* Acceptable Recovery: 48-135 %

Dilution Factor: 4
Data Qualifiers: D1,

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Organochlorine Pesticides (EPA 8081A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBGS1228211			12/28/2021 17:00	12/29/2021 15:15	Soil

ANALYTE	CAS #	ug/kg
Aldrin	309-00-2	<2.0
alpha-BHC	319-84-6	<5.0
beta-BHC	319-85-7	<5.0
gamma-BHC (Lindane)	58-89-9	<5.0
delta-BHC	319-86-8	<10
Chlordane	57-74-9	<30
4,4'-DDD	72-54-8	<10
4,4'-DDE	72-55-9	<5.0
4,4'-DDT	50-29-3	<10
Dieldrin	60-57-1	<2.0
Endosulfan I	959-98-8	<10
Endosulfan II	33213-65-9	<5.0
Endosulfan sulfate	1031-07-8	<10
Endrin	72-20-8	<10
Endrin aldehyde	7421-93-4	<10
Endrin ketone	53494-70-5	<5.0
Heptachlor	76-44-8	<2.0
Heptachlor epoxide	1024-57-3	<5.0
Methoxychlor	72-43-5	<10
Toxaphene	8001-35-2	<40

Surrogate:	% RC*
Decachlorobiphenyl	68

* Acceptable Recovery: 48-135 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Polychlorinated Biphenyl's (EPA 8082)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/28/2021 17:00	12/30/2021 10:26	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<200
PCB-1221	11104-28-2	<200
PCB-1232	11141-16-5	<200
PCB-1242	53469-21-9	<200
PCB-1248	12672-29-6	<200
PCB-1254	11097-69-1	<200
PCB-1260	11096-82-5	<200

Surrogate:	% RC*
Decachlorobiphenyl	57

* Acceptable Recovery: 48-135 %

Dilution Factor: 8

Data Qualifiers: D1.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/28/2021 17:00	12/30/2021 10:42	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<200
PCB-1221	11104-28-2	<200
PCB-1232	11141-16-5	<200
PCB-1242	53469-21-9	<200
PCB-1248	12672-29-6	<200
PCB-1254	11097-69-1	<200
PCB-1260	11096-82-5	<200

Surrogate:	% RC*
Decachlorobiphenyl	54

* Acceptable Recovery: 48-135 %

Dilution Factor: 8

Data Qualifiers: D1.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/28/2021 17:00	12/30/2021 10:57	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<200
PCB-1221	11104-28-2	<200
PCB-1232	11141-16-5	<200
PCB-1242	53469-21-9	<200
PCB-1248	12672-29-6	<200
PCB-1254	11097-69-1	<200
PCB-1260	11096-82-5	<200

Surrogate:	% RC*
Decachlorobiphenyl	55

* Acceptable Recovery: 48-135 %

Dilution Factor: 8

Data Qualifiers: D1.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Polychlorinated Biphenyl's (EPA 8082)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/28/2021 17:00	12/30/2021 11:12	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<200
PCB-1221	11104-28-2	<200
PCB-1232	11141-16-5	<200
PCB-1242	53469-21-9	<200
PCB-1248	12672-29-6	<200
PCB-1254	11097-69-1	<200
PCB-1260	11096-82-5	<200

Surrogate:	% RC*
Decachlorobiphenyl	55

* Acceptable Recovery: 48-135 %

Dilution Factor: 8

Data Qualifiers: D1.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/28/2021 17:00	12/30/2021 11:27	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<50
PCB-1221	11104-28-2	<50
PCB-1232	11141-16-5	<50
PCB-1242	53469-21-9	<50
PCB-1248	12672-29-6	<50
PCB-1254	11097-69-1	<50
PCB-1260	11096-82-5	<50

Surrogate:	% RC*
Decachlorobiphenyl	63

* Acceptable Recovery: 48-135 %

Dilution Factor: 2

Data Qualifiers: D1.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/28/2021 17:00	12/30/2021 11:42	Soil

ANALYTE	CAS #	µg/kg
PCB-1016	12674-11-2	<100
PCB-1221	11104-28-2	<100
PCB-1232	11141-16-5	<100
PCB-1242	53469-21-9	<100
PCB-1248	12672-29-6	<100
PCB-1254	11097-69-1	<100
PCB-1260	11096-82-5	<100

Surrogate:	% RC*
Decachlorobiphenyl	55

* Acceptable Recovery: 48-135 %

Dilution Factor: 4

Data Qualifiers: D1.

Mr. Dean Stanphill
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Polychlorinated Biphenyl's (EPA 8082)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBGS1228211			12/28/2021 17:00	12/29/2021 15:15	Soil

ANALYTE	CAS #	ug/kg
PCB-1016	12674-11-2	<25
PCB-1221	11104-28-2	<25
PCB-1232	11141-16-5	<25
PCB-1242	53469-21-9	<25
PCB-1248	12672-29-6	<25
PCB-1254	11097-69-1	<25
PCB-1260	11096-82-5	<25

Surrogate:	% RC*
Decachlorobiphenyl	68

* Acceptable Recovery: 48-135 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Extractable Fuel Hydrocarbons (EPA 8015M): CCID

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/27/2021 12:41	12/27/2021 18:13	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	N.D.
C14-15	N.D.
C16-17	N.D.
C18-19	N.D.
C20-21	N.D.
C22-23	N.D.
C24-25	N.D.
C26-27	N.D.
C28-30	N.D.
C31-32	N.D.
C33-34	N.D.
C35-36	N.D.
C37-44	N.D.
Total	<10

Surrogate: % RC*
Octacosane 159

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1,

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/27/2021 12:41	12/27/2021 18:55	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	N.D.
C14-15	N.D.
C16-17	16
C18-19	28
C20-21	21
C22-23	7.5
C24-25	1.3
C26-27	0.09
C28-30	N.D.
C31-32	N.D.
C33-34	N.D.
C35-36	N.D.
C37-44	N.D.
Total	74

Surrogate: % RC*
Octacosane 155

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1,

* Extractable Fuel Hydrocarbons (EFH) are quantitated against a #2 diesel standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Extractable Fuel Hydrocarbons (EPA 8015M): CCID

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/27/2021 12:41	12/27/2021 21:44	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	0.53
C14-15	N.D.
C16-17	N.D.
C18-19	1.3
C20-21	0.72
C22-23	4.1
C24-25	4.6
C26-27	5.3
C28-30	17
C31-32	6.6
C33-34	9.5
C35-36	2.9
C37-44	0.25
Total	53

Surrogate: % RC*
Octacosane 158

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1,

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/27/2021 12:41	12/27/2021 22:26	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	1.0
C14-15	0.94
C16-17	0.67
C18-19	1.5
C20-21	0.90
C22-23	10
C24-25	13
C26-27	12
C28-30	37
C31-32	16
C33-34	12
C35-36	7.6
C37-44	1.8
Total	110

Surrogate: % RC*
Octacosane 167

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1,

* Extractable Fuel Hydrocarbons (EFH) are quantitated against a #2 diesel standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Extractable Fuel Hydrocarbons (EPA 8015M): CCID

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/27/2021 12:41	12/27/2021 23:08	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	N.D.
C14-15	N.D.
C16-17	N.D.
C18-19	N.D.
C20-21	N.D.
C22-23	N.D.
C24-25	N.D.
C26-27	N.D.
C28-30	N.D.
C31-32	N.D.
C33-34	N.D.
C35-36	N.D.
C37-44	N.D.
Total	<10

Surrogate:	% RC*
Octacosane	176

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1.

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/27/2021 12:41	12/27/2021 23:51	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	N.D.
C14-15	N.D.
C16-17	N.D.
C18-19	N.D.
C20-21	N.D.
C22-23	N.D.
C24-25	N.D.
C26-27	N.D.
C28-30	N.D.
C31-32	N.D.
C33-34	N.D.
C35-36	N.D.
C37-44	N.D.
Total	<10

Surrogate:	% RC*
Octacosane	191

* Acceptable Recovery: 40-141 %

Dilution Factor: 1
Data Qualifiers: S1.

* Extractable Fuel Hydrocarbons (EFH) are quantitated against a #2 diesel standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Extractable Fuel Hydrocarbons (EPA 8015M): CCID

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBVV1227212			12/27/2021 12:41	12/27/2021 14:46	Soil

ANALYTE	mg/kg
C10-11	N.D.
C12-13	N.D.
C14-15	N.D.
C16-17	N.D.
C18-19	N.D.
C20-21	N.D.
C22-23	N.D.
C24-25	N.D.
C26-27	N.D.
C28-30	N.D.
C31-32	N.D.
C33-34	N.D.
C35-36	N.D.
C37-44	N.D.
Total	<10

Surrogate:	% RC*
Octacosane	108

* Acceptable Recovery: 40-141 %

Dilution Factor: 1

Data Qualifiers: None

* Extractable Fuel Hydrocarbons (EFH) are quantitated against a #2 diesel standard.

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Chlorinated Herbicides (EPA 8151A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/22/2021 14:00	12/24/2021 11:21	Soil

ANALYTE	CAS #	µg/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	69

* Acceptable Recovery: 13-150 %

Dilution Factor: 1

Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/22/2021 14:00	12/24/2021 14:31	Soil

ANALYTE	CAS #	µg/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	70

* Acceptable Recovery: 13-150 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Chlorinated Herbicides (EPA 8151A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	**26620-003**	**12/22/2021 10:00**	**12/21/2021 7:14**	**12/22/2021 14:00**	**12/24/2021 14:55**	**Soil**

ANALYTE	CAS #	ug/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	74

* Acceptable Recovery: 13-150 %

Dilution Factor: 1
Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	**26620-004**	**12/22/2021 10:00**	**12/21/2021 7:16**	**12/22/2021 14:00**	**12/24/2021 15:19**	**Soil**

ANALYTE	CAS #	ug/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	59

* Acceptable Recovery: 13-150 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Chlorinated Herbicides (EPA 8151A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/22/2021 14:00	12/24/2021 15:43	Soil

ANALYTE	CAS #	ug/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	70

* Acceptable Recovery: 13-150 %

Dilution Factor: 1

Data Qualifiers: None

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/22/2021 14:00	12/24/2021 16:55	Soil

ANALYTE	CAS #	ug/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	68

* Acceptable Recovery: 13-150 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
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1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Chlorinated Herbicides (EPA 8151A)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	**MBAV1221211**			**12/21/2021 15:00**	**12/24/2021 7:20**	**Soil**

ANALYTE	CAS #	µg/kg
Dicamba	1918-00-9	<100
Dichloroprop	120-36-5	<100
2,4-D	94-75-7	<100
2,4,5-TP (silvex)	93-72-1	<100
2,4,5-T	93-76-5	<100

Surrogate:	% RC*
2,4-Dichlorophenylacetic Acid	117

* Acceptable Recovery: 13-150 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/22/2021 15:00	12/23/2021 13:13	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	115	44-132 %
Toluene-d8:	107	46-130 %
4-Bromofluorobenzene:	102	44-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/22/2021 10:45	12/23/2021 13:34	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	114	44-132 %
Toluene-d8:	106	46-130 %
4-Bromofluorobenzene:	101	44-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/22/2021 10:45	12/23/2021 13:55	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	112	44-132 %
Toluene-d8:	101	46-130 %
4-Bromofluorobenzene:	95	44-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/22/2021 10:45	12/23/2021 14:17	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	112	44-132 %
Toluene-d8:	102	46-130 %
4-Bromofluorobenzene:	93	44-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/22/2021 10:45	12/23/2021 16:05	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	112	44-132 %
Toluene-d8:	105	46-130 %
4-Bromofluorobenzene:	101	44-130 %

Dilution Factor: 1

Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/22/2021 10:45	12/23/2021 16:26	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	111	44-132 %
Toluene-d8:	101	46-130 %
4-Bromofluorobenzene:	94	44-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Volatile Organics by GC/MS (EPA 8260B)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBHT1222211			12/22/2021 10:45	12/23/2021 11:02	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

Surrogate:	% RC	Acceptable % RC
Dibromofluoromethane:	114	44-132 %
Toluene-d8:	107	46-130 %
4-Bromofluorobenzene:	98	44-130 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	12/23/2021 15:00	12/24/2021 15:59	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	25	8-130 %
Phenol-d6:	25	10-130 %
Nitrobenzene-d5:	42	6-130 %
2-Fluorobiphenyl:	55	12-130 %
2,4,6-Tribromophenol:	28	15-130 %
Terphenyl-d14:	71	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	12/23/2021 15:00	12/24/2021 16:30	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	27	8-130 %
Phenol-d6:	28	10-130 %
Nitrobenzene-d5:	48	6-130 %
2-Fluorobiphenyl:	62	12-130 %
2,4,6-Tribromophenol:	34	15-130 %
Terphenyl-d14:	83	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	12/23/2021 15:00	12/24/2021 17:03	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	27	8-130 %
Phenol-d6:	27	10-130 %
Nitrobenzene-d5:	48	6-130 %
2-Fluorobiphenyl:	62	12-130 %
2,4,6-Tribromophenol:	33	15-130 %
Terphenyl-d14:	81	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	12/23/2021 15:00	12/24/2021 17:35	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	14	8-130 %
Phenol-d6:	15	10-130 %
Nitrobenzene-d5:	26	6-130 %
2-Fluorobiphenyl:	33	12-130 %
2,4,6-Tribromophenol:	19	15-130 %
Terphenyl-d14:	48	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	12/23/2021 15:00	12/24/2021 18:08	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	24	8-130 %
Phenol-d6:	25	10-130 %
Nitrobenzene-d5:	42	6-130 %
2-Fluorobiphenyl:	55	12-130 %
2,4,6-Tribromophenol:	30	15-130 %
Terphenyl-d14:	73	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	12/23/2021 15:00	12/24/2021 18:39	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	23	8-130 %
Phenol-d6:	23	10-130 %
Nitrobenzene-d5:	42	6-130 %
2-Fluorobiphenyl:	52	12-130 %
2,4,6-Tribromophenol:	28	15-130 %
Terphenyl-d14:	70	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
TW-01	26620-007	12/22/2021 10:00	12/21/2021 9:20	12/23/2021 15:00	12/24/2021 19:11	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	25	8-130 %
Phenol-d6:	25	10-130 %
Nitrobenzene-d5:	45	6-130 %
2-Fluorobiphenyl:	58	12-130 %
2,4,6-Tribromophenol:	34	15-130 %
Terphenyl-d14:	82	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
TW-02	26620-008	12/22/2021 10:00	12/21/2021 9:26	12/23/2021 15:00	12/24/2021 19:44	Soil

ANALYTE	CAS #	µg/kg	ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500	Di-n-octyl phthalate:	117-84-0	<500
Acenaphthylene:	208-96-8	<500	Fluoranthene:	206-44-0	<500
Aniline:	62-53-3	<500	Fluorene:	86-73-7	<500
Anthracene:	120-12-7	<500	Hexachlorobenzene:	118-74-1	<500
Benz(a)anthracene:	56-55-3	<500	Hexachlorobutadiene:	87-68-3	<500
Benzo(b)fluoranthene:	205-99-2	<500	Hexachlorocyclopentadiene:	77-47-4	<2500
Benzo(k)fluoranthene:	207-08-9	<500	Hexachloroethane:	67-72-1	<500
Benzo(g,h,i)perylene:	191-24-2	<500	Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Benzo(a)pyrene:	50-32-8	<500	Isophorone:	78-59-1	<500
Benzyl alcohol:	100-51-6	<500	2-Methylnaphthalene:	91-57-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500	2-Methylphenol:	95-48-7	<500
bis-(2-chloroethyl) ether:	111-44-4	<500	3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500	Naphthalene:	91-20-3	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500	2-Nitroaniline:	88-74-4	<1300
4-Bromophenyl phenyl ether:	101-55-3	<500	3-Nitroaniline:	99-09-2	<1300
Butyl benzyl phthalate:	85-68-7	<500	4-Nitroaniline:	100-01-6	<1300
4-Chloroaniline:	106-47-8	<500	Nitrobenzene:	98-95-3	<500
2-Chloronaphthalene:	91-58-7	<500	2-Nitrophenol:	88-75-5	<500
4-Chloro-3-methylphenol:	59-50-7	<500	4-Nitrophenol:	100-02-7	<5000
2-Chlorophenol:	95-57-8	<500	N-Nitrosodiphenylamine:	86-30-6	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500	N-Nitrosodi-n-propylamine:	621-64-7	<500
Chrysene:	218-01-9	<500	N-Nitrosodimethylamine:	62-75-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500	Pentachlorophenol:	87-86-5	<2500
Dibenzofuran:	132-64-9	<500	Phenanthrene:	85-01-8	<500
Di-n-butyl phthalate:	84-74-2	<500	Phenol:	108-95-2	<500
1,2-Dichlorobenzene:	95-50-1	<500	Pyrene:	129-00-0	<500
1,3-Dichlorobenzene:	541-73-1	<500	1,2,4-Trichlorobenzene:	120-82-1	<500
1,4-Dichlorobenzene:	106-46-7	<500	2,4,5-Trichlorophenol:	95-95-4	<500
2,4-Dichlorophenol:	120-83-2	<500	2,4,6-Trichlorophenol:	88-06-2	<500
Diethyl phthalate:	84-66-2	<500			
2,4-Dimethylphenol:	105-67-9	<500			
Dimethyl phthalate:	131-11-3	<500			
4,6-Dinitro-2-methylphenol:	534-52-1	<5000			
2,4-Dinitrophenol:	51-28-5	<5000			
2,4-Dinitrotoluene:	121-14-2	<1300			
2,6-Dinitrotoluene:	606-20-2	<1300			

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	26	8-130 %
Phenol-d6:	26	10-130 %
Nitrobenzene-d5:	46	6-130 %
2-Fluorobiphenyl:	60	12-130 %
2,4,6-Tribromophenol:	38	15-130 %
Terphenyl-d14:	77	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Semi Volatile Organics by GC/MS (EPA 8270C)

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBAV1223211			12/23/2021 15:00	12/24/2021 11:11	Soil

ANALYTE	CAS #	µg/kg
Acenaphthene:	83-32-9	<500
Acenaphthylene:	208-96-8	<500
Aniline:	62-53-3	<500
Anthracene:	120-12-7	<500
Benz(a)anthracene:	56-55-3	<500
Benzo(b)fluoranthene:	205-99-2	<500
Benzo(k)fluoranthene:	207-08-9	<500
Benzo(g,h,i)perylene:	191-24-2	<500
Benzo(a)pyrene:	50-32-8	<500
Benzyl alcohol:	100-51-6	<500
bis-(2-chloroethoxy) methane:	111-91-1	<500
bis-(2-chloroethyl) ether:	111-44-4	<500
bis-(2-chloroisopropyl) ether:	108-60-1	<500
bis-(2-ethylhexyl) phthalate:	117-81-7	<500
4-Bromophenyl phenyl ether:	101-55-3	<500
Butyl benzyl phthalate:	85-68-7	<500
4-Chloroaniline:	106-47-8	<500
2-Chloronaphthalene:	91-58-7	<500
4-Chloro-3-methylphenol:	59-50-7	<500
2-Chlorophenol:	95-57-8	<500
4-Chlorophenyl phenyl ether:	7005-72-3	<500
Chrysene:	218-01-9	<500
Dibenz(a,h)anthracene:	53-70-3	<500
Dibenzofuran:	132-64-9	<500
Di-n-butyl phthalate:	84-74-2	<500
1,2-Dichlorobenzene:	95-50-1	<500
1,3-Dichlorobenzene:	541-73-1	<500
1,4-Dichlorobenzene:	106-46-7	<500
2,4-Dichlorophenol:	120-83-2	<500
Diethyl phthalate:	84-66-2	<500
2,4-Dimethylphenol:	105-67-9	<500
Dimethyl phthalate:	131-11-3	<500
4,6-Dinitro-2-methylphenol:	534-52-1	<5000
2,4-Dinitrophenol:	51-28-5	<5000
2,4-Dinitrotoluene:	121-14-2	<1300
2,6-Dinitrotoluene:	606-20-2	<1300

ANALYTE	CAS #	µg/kg
Di-n-octyl phthalate:	117-84-0	<500
Fluoranthene:	206-44-0	<500
Fluorene:	86-73-7	<500
Hexachlorobenzene:	118-74-1	<500
Hexachlorobutadiene:	87-68-3	<500
Hexachlorocyclopentadiene:	77-47-4	<2500
Hexachloroethane:	67-72-1	<500
Indeno(1,2,3-cd)pyrene:	193-39-5	<500
Isophorone:	78-59-1	<500
2-Methylnaphthalene:	91-57-6	<500
2-Methylphenol:	95-48-7	<500
3 & 4-Methylphenol:	108-39-4, 106-44-5	<500
Naphthalene:	91-20-3	<500
2-Nitroaniline:	88-74-4	<1300
3-Nitroaniline:	99-09-2	<1300
4-Nitroaniline:	100-01-6	<1300
Nitrobenzene:	98-95-3	<500
2-Nitrophenol:	88-75-5	<500
4-Nitrophenol:	100-02-7	<5000
N-Nitrosodiphenylamine:	86-30-6	<500
N-Nitrosodi-n-propylamine:	621-64-7	<500
N-Nitrosodimethylamine:	62-75-9	<500
Pentachlorophenol:	87-86-5	<2500
Phenanthrene:	85-01-8	<500
Phenol:	108-95-2	<500
Pyrene:	129-00-0	<500
1,2,4-Trichlorobenzene:	120-82-1	<500
2,4,5-Trichlorophenol:	95-95-4	<500
2,4,6-Trichlorophenol:	88-06-2	<500

Surrogate:	% RC	Acceptable % RC
2-Fluorophenol:	34	8-130 %
Phenol-d6:	34	10-130 %
Nitrobenzene-d5:	57	6-130 %
2-Fluorobiphenyl:	72	12-130 %
2,4,6-Tribromophenol:	46	15-130 %
Terphenyl-d14:	93	18-155 %

Dilution Factor: 1
Data Qualifiers: None

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-01	26620-001	12/22/2021 10:00	12/21/2021 7:10	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Arsenic	6010B	3.5	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Barium	6010B	180	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Beryllium	6010B	0.70	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Chromium	6010B	16	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Cobalt	6010B	5.3	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Copper	6010B	13	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Lead	6010B	11	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:06	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Nickel	6010B	12	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Vanadium	6010B	29	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1
Zinc	6010B	48	mg/kg	12/23/21 09:30	12/30/21 14:30	--	1

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-02	26620-002	12/22/2021 10:00	12/21/2021 7:12	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Arsenic	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Barium	6010B	170	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Chromium	6010B	15	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Cobalt	6010B	5.8	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Copper	6010B	19	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Lead	6010B	5.1	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:11	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Nickel	6010B	10	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Vanadium	6010B	35	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1
Zinc	6010B	46	mg/kg	12/23/21 09:30	12/30/21 14:44	--	1

EEC ORIGINAL PKG

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-03	26620-003	12/22/2021 10:00	12/21/2021 7:14	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Arsenic	6010B	2.5	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Barium	6010B	130	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Chromium	6010B	12	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Cobalt	6010B	4.3	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Copper	6010B	13	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Lead	6010B	25	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:13	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Nickel	6010B	11	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Vanadium	6010B	21	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1
Zinc	6010B	58	mg/kg	12/23/21 09:30	12/30/21 14:47	--	1

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Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-04	26620-004	12/22/2021 10:00	12/21/2021 7:16	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Arsenic	6010B	2.9	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Barium	6010B	180	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Chromium	6010B	20	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Cobalt	6010B	5.2	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Copper	6010B	15	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Lead	6010B	9.8	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Mercury	7471A	0.13	mg/kg	12/23/21 10:00	12/28/21 12:15	--	1
Molybdenum	6010B	1.4	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Nickel	6010B	21	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Vanadium	6010B	25	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1
Zinc	6010B	77	mg/kg	12/23/21 09:30	12/30/21 14:50	--	1

EEC ORIGINAL PKG

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1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-05	26620-005	12/22/2021 10:00	12/21/2021 9:18	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Arsenic	6010B	2.4	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Barium	6010B	140	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Chromium	6010B	14	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Cobalt	6010B	3.9	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Copper	6010B	12	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Lead	6010B	29	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:17	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Nickel	6010B	9.3	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Vanadium	6010B	19	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1
Zinc	6010B	44	mg/kg	12/23/21 09:30	12/30/21 14:53	--	1

EEC ORIGINAL PKG

Mr. Dean Stanphill
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS-06	26620-006	12/22/2021 10:00	12/21/2021 9:16	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Arsenic	6010B	3.1	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Barium	6010B	190	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Beryllium	6010B	0.53	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Chromium	6010B	15	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Cobalt	6010B	4.9	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Copper	6010B	16	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Lead	6010B	15	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:18	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Nickel	6010B	13	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Vanadium	6010B	24	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1
Zinc	6010B	74	mg/kg	12/23/21 09:30	12/30/21 14:56	--	1

EEC ORIGINAL PKG

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
TW-01	26620-007	12/22/2021 10:00	12/21/2021 9:20	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Arsenic	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Barium	6010B	7.7	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Chromium	6010B	0.58	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Cobalt	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Copper	6010B	6800	mg/kg	12/23/21 09:30	12/30/21 16:58	D1,	5
Lead	6010B	26	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:20	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Nickel	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Silver	6010B	0.54	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Vanadium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1
Zinc	6010B	6.6	mg/kg	12/23/21 09:30	12/30/21 14:59	--	1

Mr. Dean Stanphill
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Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
TW-02	26620-008	12/22/2021 10:00	12/21/2021 9:26	Soil

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
Antimony	6010B	65	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Arsenic	6010B	3200	mg/kg	12/23/21 09:30	12/30/21 17:02	D1,	5
Barium	6010B	19	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Cadmium	6010B	85	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Chromium	6010B	4300	mg/kg	12/23/21 09:30	12/30/21 17:02	D1,	5
Cobalt	6010B	0.89	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Copper	6010B	2200	mg/kg	12/23/21 09:30	12/30/21 17:02	D1,	5
Lead	6010B	2.3	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 12:22	--	1
Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Nickel	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Vanadium	6010B	2.5	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1
Zinc	6010B	6.4	mg/kg	12/23/21 09:30	12/30/21 15:03	--	1

EEC ORIGINAL PKG

Mr. Dean Stanphill
Construction Testing & Engineering, Inc.
1441 Montiel Rd Ste 115
Escondido, CA, 92026

Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID: **Method Blank** | Lab Sample Number: | Date Received: | Date Sampled: | Matrix: **Soil**

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBHV1223213	Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Arsenic	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Barium	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Chromium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Cobalt	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Copper	6010B	<5.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Lead	6010B	<0.80	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Nickel	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Vanadium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Zinc	6010B	<5.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1

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Lab Reference #: CTE 26620
Project Name: PSI Sampling at Bridge 58C-0014
Project #: 2021-ES029

Metals

Client Sample ID: **Method Blank**

Lab Sample Number:

Date Received:

Date Sampled:

Matrix: **Soil**

MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBHV1223213	Antimony	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Arsenic	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Barium	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Beryllium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Cadmium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Chromium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Cobalt	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Copper	6010B	<5.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Lead	6010B	<0.80	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223215	Mercury	7471A	<0.10	mg/kg	12/23/21 10:00	12/28/21 11:40	--	1
MBHV1223213	Molybdenum	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Nickel	6010B	<1.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Selenium	6010B	<4.8	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Silver	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Thallium	6010B	<2.0	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1
MBHV1223213	Vanadium	6010B	<0.50	mg/kg	12/23/21 09:30	12/30/21 14:21	--	1

QA/QC Report
for
Volatile Fuel Hydrocarbons (EPA 8015B)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/23/2021 9:30
Date of Analysis: 12/23/2021 11:23
Dup Date of Analysis: 12/23/2021 11:43
Laboratory Sample #: 26620-001
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.00	0.250	0.239	0.235	96	94	2	58-134	20	

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
α-α-α-Trifluorotoluene	107	110	☐	111	106	☐	63-130

Laboratory Control Sample

Date of Extraction: 12/23/2021 9:30
Date of Analysis: 12/23/2021 10:41
Dup Date of Analysis: 12/23/2021 11:01
Laboratory Sample #: LY1223211
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	0.250	0.250	0.234	100	94	7	59-132	20	

QA/QC Report
for
Organochlorine Pesticides (EPA 8081A)
Reporting Units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/28/2021 17:00
Date of Analysis: 12/29/2021 15:46
Dup Date of Analysis: 12/29/2021 16:01
Laboratory Sample #: 26621-001
MS/MSD Qualifiers: M1, M3,
Reference #: CTE 26620

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Aldrin	0.00	20.0	13.5	12.4	68	62	8	46-130	30	--
alpha-BHC	0.00	20.0	11.2	11.0	56	55	2	30-130	30	--
beta-BHC	0.00	20.0	12.0	11.6	60	58	3	31-136	30	--
gamma-BHC (Lindane)	0.00	20.0	12.4	12.5	62	63	1	45-130	28	--
4,4'-DDD	0.00	20.0	18.4	16.6	92	83	10	49-150	26	--
4,4'-DDE	170	20.0	134	131	0	0	2	44-150	24	M3,
4,4'-DDT	0.00	20.0	44.4	43.4	222	217	2	50-150	22	M1,
delta-BHC	0.00	20.0	12.7	13.6	63	68	7	33-138	30	--
Dieldrin	0.00	20.0	15.1	14.4	75	72	5	49-130	25	--
Endosulfan I	0.00	20.0	15.6	14.3	78	72	9	47-130	30	--
Endosulfan II	0.00	20.0	12.3	14.3	62	72	15	30-150	30	--
Endosulfan sulfate	0.00	20.0	10.7	14.0	53	70	27	30-150	30	--
Endrin	0.00	20.0	24.8	23.3	124	116	6	52-133	25	--
Endrin Aldehyde	0.00	20.0	11.2	13.1	56	66	16	30-150	30	--
Endrin ketone	0.00	20.0	10.6	13.0	53	65	20	30-150	30	--
Heptachlor	0.00	20.0	12.5	11.2	63	56	11	46-130	30	--
Heptachlor epoxide	0.00	20.0	13.1	12.0	66	60	9	38-130	27	--
Methoxychlor	0.00	20.0	11.8	12.8	59	64	8	30-150	30	--

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Decachlorobiphenyl	71	61		67	68		48-135

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 12/28/2021 17:00
Date of Analysis: 12/29/2021 12:39
Dup Date of Analysis: 12/29/2021 12:54
Laboratory Sample #: GS1228211A
LCS/LCSD Qualifiers: None

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Aldrin	20.0	17.3	17.5	86	88	1	47-130	26	--
alpha-BHC	20.0	16.6	16.8	83	84	1	40-130	30	--
beta-BHC	20.0	14.0	17.4	70	87	22	40-130	30	--
gamma-BHC (Lindane)	20.0	17.2	17.4	86	87	1	46-130	26	--
4,4'-DDD	20.0	17.1	17.4	86	87	2	57-150	23	--
4,4'-DDE	20.0	18.0	18.3	90	91	2	48-143	24	--

QA/QC Report
for
Organochlorine Pesticides (EPA 8081A)

Reporting Units: ppb

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
4,4'-DDT	20.0	17.0	17.3	85	86	2	51-144	20	--
delta-BHC	20.0	17.0	17.3	85	86	2	43-130	23	--
Dieldrin	20.0	17.4	17.5	87	88	1	48-130	22	--
Endosulfan I	20.0	18.0	18.2	90	91	1	43-130	27	--
Endosulfan II	20.0	17.5	17.7	88	89	1	60-131	22	--
Endosulfan sulfate	20.0	16.8	18.3	84	91	9	54-139	25	--
Endrin	20.0	17.5	17.6	88	89	2	51-130	20	--
Endrin Aldehyde	20.0	14.7	14.9	74	75	1	40-138	30	--
Endrin ketone	20.0	15.2	15.6	76	78	3	47-132	28	--
Heptachlor	20.0	16.5	16.7	82	84	1	43-130	27	--
Heptachlor epoxide	20.0	16.5	16.6	82	83	1	40-130	30	--
Methoxychlor	20.0	16.5	17.0	82	85	3	53-140	26	--

QA/QC Report
for
Polychlorinated Biphenyl's (EPA 8082)
Reporting units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/28/2021 17:00
Date of Analysis: 12/29/2021 16:16
Dup Date of Analysis: 12/29/2021 16:31
Laboratory Sample #: 26621-001
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
PCB-1016	0.00	150	86.7	88.0	58	59	1	42-130	26	
PCB-1260	0.00	150	163	167	109	111	2	47-140	20	

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Decachlorobiphenyl	65	66		67	69		48-135

Laboratory Control Sample

Date of Extraction: 12/28/2021 17:00
Date of Analysis: 12/29/2021 13:10
Dup Date of Analysis: 12/29/2021 13:25
Laboratory Sample #: GS1228211B
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
PCB-1016	150	127	130	85	87	2	43-130	28	
PCB-1260	150	131	134	87	89	2	54-130	20	

QA/QC Report
for
Extactable Fuel Hydrocarbons: CCID (EPA 8015M)
Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/27/2021 12:41
Date of Analysis: 12/27/2021 16:09
Dup Date of Analysis: 12/27/2021 16:29
Laboratory Sample #: 26622-003
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
TPH as Diesel	0.00	1000	881	820	88	82	7	48-137	23	

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Octacosane	116	106	☐	116	118	☐	40-141

Laboratory Control Sample

Date of Extraction: 12/27/2021 12:41
Date of Analysis: 12/27/2021 15:27
Dup Date of Analysis: 12/27/2021 15:48
Laboratory Sample #: VV1227212
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
TPH as Diesel	1000	732	789	73	79	7	54-130	20	

QA/QC Report
for
Chlorinated Herbicides (8151A)
Reporting Units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/21/2021 15:00
Date of Analysis: 12/24/2021 8:32
Dup Date of Analysis: 12/24/2021 8:56
Laboratory Sample #: AZ13304-001
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
2,4-D	0.00	500	370	402	74	80	8	D-130	50	--
Dicamba	0.00	500	488	474	98	95	3	25-130	30	--
Dichloroprop	0.00	500	437	431	87	86	1	24-130	37	--
2,4,5-T	0.00	500	386	401	77	80	4	9-130	32	--
2,4,5-TP (Silvex)	0.00	500	431	414	86	83	4	24-130	29	--

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
2,4-Dichlorophenylacetic acid	80	100		70	50		13-150

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 12/21/2021 15:00
Date of Analysis: 12/24/2021 7:44
Dup Date of Analysis: 12/24/2021 8:08
Laboratory Sample #: AV1221211
LCS/LCSD Qualifiers: R7.

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
2,4-D	500	320	253	64	51	23	20-130	41	--
Dicamba	500	536	381	107	76	34	48-130	22	R7.
Dichloroprop	500	438	305	88	61	36	39-130	33	R7.
2,4,5-T	500	406	249	81	50	48	37-130	30	R7.
2,4,5-TP (Silvex)	500	416	287	84	57	37	40-130	29	R7.

QA/QC Report
for
Volatile Organic Compounds (8260B)
Reporting Units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/23/2021 9:29
Date of Analysis: 12/23/2021 14:39
Dup Date of Analysis: 12/23/2021 15:00
Laboratory Sample #: 26622-001
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Benzene	0.00	10.0	11.3	11.5	113	115	2	70-133	20	--
Chlorobenzene	0.00	10.0	11.5	11.6	115	116	1	70-133	20	--
1,1-Dichloroethene	0.00	10.0	9.02	9.15	90	91	1	41-134	20	--
Toluene	0.00	10.0	11.3	11.5	113	115	2	63-132	20	--
Trichloroethene	0.00	10.0	9.96	10.2	100	102	2	70-130	20	--

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Dibromofluoromethane	111	111		111	111		44-132
Toluene-d8	103	107		105	99		46-130
4-Bromofluorobenzene	98	102		102	89		44-130

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 12/23/2021 9:29
Date of Analysis: 12/23/2021 12:29
Dup Date of Analysis: 12/23/2021 12:51
Laboratory Sample #: HT1223211
LCS/LCSD Qualifiers: None

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Benzene	10.0	11.6	10.9	116	109	6	70-132	20	--
Chlorobenzene	10.0	11.6	11.1	116	111	4	70-134	20	--
1,1-Dichloroethene	10.0	9.73	9.36	97	94	4	44-133	20	--
Toluene	10.0	11.2	10.3	112	103	8	66-130	20	--
Trichloroethene	10.0	10.7	9.88	107	99	8	70-130	20	--

QA/QC Report
for
Semi-Volatile Organic Compounds (8270C)
Reporting Units: ppb

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date of Extraction: 12/23/2021 15:00
Date of Analysis: 12/24/2021 12:45
Dup Date of Analysis: 12/24/2021 13:18
Laboratory Sample #: 26611-001
MS/MSD Qualifiers: None
Reference #: CTE 26620

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Acenaphthene	0.00	1000	530	581	53	58	9	21-139	20	--
4-Chloro-3-methylphenol	0.00	2000	1280	1340	64	67	5	24-133	20	--
2-Chlorophenol	0.00	2000	1260	1250	63	63	1	18-130	23	--
1,4-Dichlorobenzene	0.00	1000	570	562	57	56	1	24-130	24	--
2,4-Dinitrotoluene	0.00	1000	551	607	55	61	10	31-130	20	--
N-Nitrosodi-n-propylamine	0.00	1000	538	564	54	56	5	33-130	22	--
4-Nitrophenol	0.00	2000	939	1030	47	51	9	4-139	22	--
Pentachlorophenol	0.00	2000	1250	1360	63	68	8	23-137	20	--
Phenol	0.00	2000	1190	1170	60	58	2	24-130	22	--
Pyrene	0.00	1000	643	736	64	74	13	37-134	20	--
1,2,4-Trichlorobenzene	0.00	1000	620	632	62	63	2	26-130	25	--

Surrogate Recoveries for Spike Samples

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
2-Fluorophenol	28	27		31	31		8-130
Phenol-d6	29	29		32	33		10-130
Nitrobenzene-d5	47	47		54	54		6-130
2-Fluorobiphenyl	60	62		69	69		12-130
2,4,6-Tribromophenol	37	40		44	43		15-130
Terphenyl-d14	79	90		92	93		18-155

Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)

Date of Extraction: 12/23/2021 15:00
Date of Analysis: 12/24/2021 11:42
Dup Date of Analysis: 12/24/2021 12:13
Laboratory Sample #: VV1223211
LCS/LCSD Qualifiers: None

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Acenaphthene	1000	609	606	61	61	0	32-132	20	--
4-Chloro-3-methylphenol	2000	1430	1420	71	71	1	39-130	20	--
2-Chlorophenol	2000	1380	1380	69	69	0	36-130	20	--
1,4-Dichlorobenzene	1000	629	627	63	63	0	38-130	20	--
2,4-Dinitrotoluene	1000	618	632	62	63	2	35-130	20	--
N-Nitrosodi-n-propylamine	1000	620	605	62	61	2	43-130	20	--
4-Nitrophenol	2000	1220	1200	61	60	2	43-124	20	--
Pentachlorophenol	2000	1470	1470	74	74	0	39-130	20	--
Phenol	2000	1280	1280	64	64	0	35-130	20	--

QA/QC Report
for
Semi-Volatile Organic Compounds (8270C)
Reporting Units: ppb

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Pyrene	1000	732	726	73	73	1	37-141	20	--
1,2,4-Trichlorobenzene	1000	694	689	69	69	1	38-130	20	--

QA/QC Report
for
Metals

Reference #: CTE 26620 Reporting units: ppm

Matrix Spike (MS) / Matrix Spike Duplicate (MSD) **6010B/7471A**

Laboratory Sample #: 26620-001 **Date of Extraction:** 12/23/21 09:30

Analyte	MS Date of Analysis	MSD Date of Analysis	R1	SPC CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD	Qualifiers
Antimony	12/30/21 14:32	12/30/21 14:35	0.00	20.0	7.55	8.05	38	40	6	75-125	20	M2.
Arsenic	12/30/21 14:32	12/30/21 14:35	3.50	20.0	23.2	22.9	99	97	1	75-125	20	--
Barium	12/30/21 14:32	12/30/21 14:35	180	20.0	208	194	140	70	7	75-125	20	M3.
Beryllium	12/30/21 14:32	12/30/21 14:35	0.70	20.0	21.7	21.8	105	105	0	75-125	20	--
Cadmium	12/30/21 14:32	12/30/21 14:35	0.00	20.0	18.7	18.5	94	93	1	75-125	20	--
Chromium	12/30/21 14:32	12/30/21 14:35	16.0	20.0	36.2	35.6	101	98	2	75-125	20	--
Cobalt	12/30/21 14:32	12/30/21 14:35	5.30	20.0	22.6	22.2	87	85	2	75-125	20	--
Copper	12/30/21 14:32	12/30/21 14:35	13.0	20.0	35.1	33.6	110	103	4	75-125	20	--
Lead	12/30/21 14:32	12/30/21 14:35	11.0	20.0	26.5	26.1	78	76	2	75-125	20	--
Molybdenum	12/30/21 14:32	12/30/21 14:35	0.00	20.0	16.8	17.2	84	86	2	75-125	20	--
Nickel	12/30/21 14:32	12/30/21 14:35	12.0	20.0	32.2	30.6	101	93	5	75-125	20	--
Selenium	12/30/21 14:32	12/30/21 14:35	0.00	20.0	17.2	16.8	86	84	2	75-125	20	--
Silver	12/30/21 14:32	12/30/21 14:35	0.00	20.0	19.8	19.7	99	99	1	75-125	20	--
Thallium	12/30/21 14:32	12/30/21 14:35	0.00	20.0	14.7	14.7	73	73	0	75-125	20	M2.
Vanadium	12/30/21 14:32	12/30/21 14:35	29.0	20.0	49.2	48.0	101	95	2	75-125	20	--
Zinc	12/30/21 14:32	12/30/21 14:35	48.0	200	219	220	86	86	0	75-125	20	--

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD) **6010B/7471A**

Laboratory Sample #: HV1223213 **Date of Extraction:** 12/23/21 09:30

Analyte	LCS Date of Analysis	LCSD Date of Analysis		SPC CONC	LCS	LCSD	% LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qualifiers
Antimony	12/30/21 14:24	12/30/21 14:27	--	20.0	20.2	20.5	101	102	1	80-120	20	--
Arsenic	12/30/21 14:24	12/30/21 14:27	--	20.0	20.4	20.5	102	102	0	80-120	20	--
Barium	12/30/21 14:24	12/30/21 14:27	--	20.0	20.4	20.2	102	101	1	80-120	20	--
Beryllium	12/30/21 14:24	12/30/21 14:27	--	20.0	21.1	20.9	106	104	1	80-120	20	--
Cadmium	12/30/21 14:24	12/30/21 14:27	--	20.0	19.2	19.0	96	95	1	80-120	20	--
Chromium	12/30/21 14:24	12/30/21 14:27	--	20.0	22.1	21.9	111	109	1	80-120	20	--
Cobalt	12/30/21 14:24	12/30/21 14:27	--	20.0	20.2	20.0	101	100	1	80-120	20	--
Copper	12/30/21 14:24	12/30/21 14:27	--	20.0	21.0	20.8	105	104	1	80-120	20	--
Lead	12/30/21 14:24	12/30/21 14:27	--	20.0	20.4	20.7	102	104	1	80-120	20	--
Molybdenum	12/30/21 14:24	12/30/21 14:27	--	20.0	20.2	20.3	101	101	0	80-120	20	--
Nickel	12/30/21 14:24	12/30/21 14:27	--	20.0	21.5	21.5	108	108	0	80-120	20	--
Selenium	12/30/21 14:24	12/30/21 14:27	--	20.0	20.5	20.7	102	104	1	80-120	20	--
Silver	12/30/21 14:24	12/30/21 14:27	--	20.0	21.3	21.0	106	105	1	80-120	20	--
Thallium	12/30/21 14:24	12/30/21 14:27	--	20.0	20.2	20.2	101	101	0	80-120	20	--
Vanadium	12/30/21 14:24	12/30/21 14:27	--	20.0	20.6	20.4	103	102	1	80-120	20	--
Zinc	12/30/21 14:24	12/30/21 14:27	--	200	218	215	109	108	1	80-120	20	--

Matrix Spike (MS) / Matrix Spike Duplicate (MSD) **6010B/7471A**

Laboratory Sample #: 26616-017 **Date of Extraction:** 12/23/21 10:00

Analyte	MS Date of Analysis	MSD Date of Analysis	R1	SPC CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD	Qualifiers
Mercury	12/28/21 11:51	12/28/21 11:52	0.13	1.00	0.941	0.934	81	80	1	80-120	20	--

QA/QC Report
for
Metals

Reference #: CTE 26620 Reporting units: ppm

Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD) **6010B/7471A**

Laboratory Sample #: HV1223215 **Date of Extraction:** 12/23/21 10:00

Analyte	LCS Date of Analysis	LCSD Date of Analysis		SPC CONC	LCS	LCSD	% LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qualifiers
Mercury	12/28/21 11:42	12/28/21 11:44	--	1.00	0.821	0.925	82	93	12	80-120	20	--

Data Qualifier Definitions

Qualifier

D1 = Sample required dilution due to matrix.

M1 = Matrix spike recovery was high, the associated blank spike recovery was acceptable.

26621-001	8081A	4,4'-DDT	MS/MSD

M2 = Matrix spike recovery was low, the associated blank spike recovery was acceptable.

26620-001	6010B	Antimony	MS/MSD
26620-001	6010B	Thallium	MS/MSD

M3 = The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.

26620-001	6010B	Barium	MS/MSD
26621-001	8081A	4,4'-DDE	MS/MSD

R7 = LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

AV1221211	8151A	2,4,5-T	LCS/LCSD
AV1221211	8151A	2,4,5-TP (Silvex)	LCS/LCSD
AV1221211	8151A	Dicamba	LCS/LCSD
AV1221211	8151A	Dichloroprop	LCS/LCSD

S1 = Surrogate recovery was above laboratory acceptance limits.

Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: {(MS-R1) / SP CONC} x100
%MSD	Percent recovery of MSD: {(MSD-R1) / SP CONC} x 100
RPD (for MS/MSD)	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: {(LCS) / SP CONC} x100
%LCSD	Percent recovery of LCSD: {(LCSD) / SP CONC} x 100
RPD (for LCS/LCSD)	Relative Percent Difference: {(LCS-LCSD) / (LCS+LCSD)} x 100 x 2
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

Analysis Request and Chain of Custody Record

Lab Job No: 22022-D
Page 1 of 1

ORANGE COAST ANALYTICAL, INC. www.ocalab.com

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REQUIRED TURN AROUND TIME: Standard: X
72 Hours: ____ 48 Hours: ____ 24 Hours: ____

CUSTOMER INFORMATION		PROJECT INFORMATION	
COMPANY:	iVet Environmental	PROJECT NAME:	PSI Sampling at Bridge 546-0014
SEND REPORT TO:	Brandon Alderson	NUMBER:	2021-ES029
EMAIL:	brandon.alderson@ivetenv.com	ADDRESS:	Bridge Number 546-0014
ADDRESS:	2534 State Street Suite #311		El Centro, California
	San Diego CA 92101	P.O.#	Ref #: 121-2021
PHONE:	714-326-4577 FAX:	SAMPLED BY:	Brandon Alderson BA and CA

	SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	TPH by EPA 8015	VOCs by EPA 8260B	SVOCs by EPA 8270C	Herbicides by EPA 8151A	PCBs by EPA 8082	Metals and Pesticides	CAM Metals by 6010B/7471A	REMARKS/PRECAUTIONS
1	SS-01	1	12/21/21	0710	SS	Glass jar	X	X	X	X	X	X		
2	SS-02	1		0712			X	X	X	X	X	X		
3	SS-03	1		0714			X	X	X	X	X	X		
4	SS-04	1		0716			X	X	X	X	X	X		
5	SS-05	1		0918			X	X	X	X	X	X		
6	SS-06	1		0916			X	X	X	X	X	X		
7	TW-01	1		0920	SS				X			X		
8	TW-02	1		0926	SS				X			X		

Total No. of Samples: 8 Method of Shipment: [illegible]

Preservative: (1 = Ice) 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Relinquished By:	Date/Time:	Received By:	Date/Time:
Brandon Alderson	12/21/21 @ 1515	Alijah Calata	12-21-21 · 3:15
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: Mark Thomas OCA, CA	Date/Time: 12-22-21 1010

Sample Matrix:
GW - Groundwater
WW - Wastewater
SW - Stormwater
DW - Drinking Water
W - Water
SS - Soil/Solid
OT - Other

Sample Integrity: 2 to 2.6 °C
Intact: ____ On Ice: (Yes) / No @ 2.4 3 °C

FEC ORIGINAL PKG

Sample Receipt Report

Laboratory Reference: CTE 26620 Logged in by: HC

Received:	12/22/21 10:00	Company Name:	Construction Testing & Engineering, In
Method of Shipment:	See Notes	Project Manager:	Mr. Dean Stanphill
Shipping Container:	Cooler	Project Name:	PSI Sampling at Bridge 58C-0014
# Shipping Containers:	1	Project #:	2021-ES029

Sample Quantity
8 Soil

Chain of Custody		Complete ☑	Incomplete ☐	None ☐
Samples On Ice		Yes, Wet ☑	Yes, Blue ☐	No ☐
Observed Temp. (°C):	2	Thermometer ID: IR#3	Adjusted Temp.:	2+(-0)=2
Shipping Intact		Yes ☑	N/A ☐	No ☐
Shipping Custody Seals Intact		Yes ☐	N/A ☑	No ☐
Samples Intact		Yes ☑		No ☐
Sample Custody Seals Intact		Yes ☐	N/A ☑	No ☐
Custody Seals Signed & Dated		Yes ☐	N/A ☑	No ☐
Proper Test Containers		Yes ☑		No ☐
Proper Test Preservations		Yes ☑		No ☐
Samples Within Hold Times		Yes ☑		No ☐
VOAs Have Zero Headspace		Yes ☐	N/A ☑	No ☐
Sample Labels		Complete ☑	Incomplete ☐	None ☐
Sample Information Matches COC		Yes ☑	N/A ☐	No ☐

Notes

shipped with GLS

Client Notified _____ By _____ On _____

EEC ORIGINAL PKG

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

Regulatory Limit Exceedance Report

10x STLC Limits

Lab Reference #: **CTE 26620**
Date Received **12/22/2021**
Project Name: **PSI Sampling at Bridge 58C-0014**
Project #: **2021-ES029**

Client Sample #		Lab Sample #			
TW-01		26620-007			
Analyte	CAS #	Method	Result	Regulatory Limit	Compound Note
Copper	7440-50-8	6010B	**6800 ppm**	250 ppm	
TW-02		26620-008			
Analyte	CAS #	Method	Result	Regulatory Limit	Compound Note
Arsenic	7440-38-2	6010B	**3200 ppm**	50 ppm	
Cadmium	7440-43-9	6010B	**85 ppm**	10 ppm	
Chromium	7440-47-3	6010B	**4300 ppm**	50 ppm	If the soluble chromium as determined by the TCLP is less than 5mg/L, and the soluble chromium as dtermined by the STLC test equals or exceeds 560 mg/L, then the waste is a non-RCRA hazardous waste.
Copper	7440-50-8	6010B	**2200 ppm**	250 ppm	

Note: All compounds were analyzed for total concentration and are being compared to 10x STLC levels.

This report is to be used only to assist determining any concentration above a certain regulatory limit. All information must be confirmed by cross-referencing with current regulatory guidance and the official laboratory report from which this report was generated.

EEC ORIGINAL PKG

Orange Coast Analytical, Inc.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

Regulatory Limit Exceedance Report

20x TCLP Limits - 40 CFR 261.24

Lab Reference #: **CTE 26620**
Date Received **12/22/2021**
Project Name: **PSI Sampling at Bridge 58C-0014**
Project #: **2021-ES029**

Client Sample #		Lab Sample #			
TW-02		26620-008			
Analyte	CAS #	Method	Result	Regulatory Limit	Compound Note
Arsenic	7440-38-2	6010B	**3200 ppm**	100 ppm	
Cadmium	7440-43-9	6010B	**85 ppm**	20 ppm	
Chromium	7440-47-3	6010B	**4300 ppm**	100 ppm	

Note: All compounds were analyzed for total concentration and are being compared to 20x TCLP levels.

This report is to be used only to assist determining any concentration above a certain regulatory limit. All information must be confirmed by cross-referencing with current regulatory guidance and the official laboratory report from which this report was generated.

TECHNICAL STUDY - APPENDIX G

Water Quality Assessment Report

EEC ORIGINAL PKG

Forrester Road over Westside Main Canal Bridge Replacement Project

Water Quality Assessment Report

January 2022

717 Market Street, Suite 400
San Francisco, CA 94103
650-373-1200
www.panoramaenv.com

PANORAMA
ENVIRONMENTAL, INC.

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Forrester Road over Westside Main Canal Bridge Replacement Project

Water Quality Assessment Report

January 2022

Prepared for:
Quincy Engineering

Prepared by:
Panorama Environmental, Inc.
717 Market Street, Suite 400
San Francisco, CA 94103
650-373-1200
tania.treis@panoramaenv.com

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Executive Summary

The purpose of the Water Quality Assessment Report (WQAR) is to provide information, to the extent possible, for the National Pollution Discharge Elimination System (NDPES) permitting. Imperial County is the project sponsor and is the lead agency under CEQA. California Department of Transportation (Caltrans) is the lead agency under NEPA, through authority granted by the Federal Highway Administration.

This WQAR includes a discussion of the proposed project, the physical setting of the project area, and the regulatory framework with respect to water quality. The WQAR includes information regarding surface water and groundwater resources within the project area and downstream waterbodies including existing water quality impairments and beneficial uses. The WQAR identifies potential water quality impacts associated with the proposed project and recommends avoidance and/or minimization measures for potentially adverse impacts.

The Forrester Road over Westside Main Canal Bridge Replacement Project (proposed project) would replace an existing structurally deficient bridge, that spans the Westside Main Canal with a safe bridge that satisfies current design standards. The proposed project is within the Colorado River Basin Region. The receiving waters adjacent to the project site are Westside Main Canal and the Sumac Canal. The Salton Sea is downstream from the project and is the receiving water body for the valley. The Westside Main Canal is not individually monitored for water quality impairments. The Westside Main Canal is considered part of the Imperial Valley Drains which are currently impaired by selenium, polychlorinated biphenyls (PCBs) and four pesticide compounds (SWRCB, 2018).

Construction of the proposed project could impact water quality from pollutants of concern, such as sediments, petroleum products, trash, and debris during demolition and removal of the existing bridge and installation of the new bridge including the abutments within Westside Main Canal.

A Stormwater Pollution Prevention Plan (SWPPP), which is prepared for projects greater than one acre, will be prepared and implemented during construction of the proposed project. The SWPPP identifies specific best management practices (BMPs) that will be implemented during project construction. BMPs implemented as a part of the project would meet the requirements of the California State Water Resources Control Board (SWRCB) NPDES Construction General Permit, General Waste Discharge Requirements and General NPDES Permit for Low Threat Discharges to Surface Waters within the Basin, and the Caltrans NPDES Permit. Section 401 water quality certification would also be required for the project due to construction of the abutments, removal of the existing piles, and water diversion within Westside Main Canal. The construction would comply with all conditions of the 401 water quality certification.

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List of Abbreviated Terms

ASBS	Areas of Special Biological Significance
Basin	Colorado River Basin Region
Basin Plan	Water Quality Control Plan
BMP	Best Management Practice
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CGP	Construction General Permit
County	Imperial County Public Works Department
CWA	Clean Water Act
IID	Imperial Irrigation District
LEDPA	Less Environmentally Damaging Practicable Alternative
MS4	Municipal Storm Separate Sewer System
NEPA	National Environmental Policy Act
NPDES	National Pollution Discharge Elimination System
RWQCB	Regional Water Quality Control Board
SWMP	Storm Water Management Plan
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
WDR	Waste Discharge Requirements
WPCP	Water Pollution Control Plan
WQAR	Water Quality Assessment Report

Introduction

Approach to Water Quality Assessment

The purpose of the Water Quality Assessment Report (WQAR) is to fulfill the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), and to provide information, to the extent possible, for National Pollution Discharge Elimination System (NPDES) permitting. The document includes a discussion of the proposed project, the physical setting of the project site, and the regulatory framework with respect to water quality; it also provides data on surface water and groundwater resources within the project area (the area within and adjacent to the project site) and the water quality of these waters, describes water quality impairments and beneficial uses, identifies potential water quality impacts/benefits associated with the proposed project, and recommends avoidance and/or minimization measures for potentially adverse impacts.

Project Description

The Imperial County Public Works Department (County) proposes to demolish the existing County Bridge No. 58C-0014 that spans the Westside Main Canal and Sumac Canal and construct the Forrester Road over Westside Main Canal Bridge Replacement project (proposed project) in its place. The existing bridge is a 4-span steel stringer bridge with a reinforced concrete deck and is supported by reinforced concrete pile cap bents founded on cast-in-steel shell pile extensions within the canal. The proposed replacement bridge would include reinforced concrete abutments on deep foundations that would support a single-span steel plate girder superstructure. No additional supports would be required within the canal. While the proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet, the approaches from each direction would be similar to existing design. The Imperial Irrigation District (IID) owns and operates the Westside Main Canal and Sumac Canal over which the bridge crosses. IID levee access roads occur on either side of the Westside Main Canal and cross Forrester Road near the northern and southern extent of the existing bridge at uncontrolled intersections. Access to these roads for IID maintenance would be preserved throughout construction and operation of the replacement bridge.

Project Location

The project site is within the western end of the U.S. Geologic Survey (USGS) 7.5-minute, 1:24,000-scale Brawley Quadrangle and the northwest quarter of Section 22 Township 14 S Range 13 E.

The existing and proposed bridge site is located on Forrester Road in Imperial County, approximately 10 miles north of Interstate 8 (I-8) and 5 miles southwest of Brawley, California, as shown in Figure 1. The bridge spans the Westside Main Canal and the Sumac Canal, approximately 1,330 feet south of the intersection of Forrester Road with

Imler Road. The project site is surrounded by private agricultural fields. The elevation of the project site is approximately 70 feet below sea level.

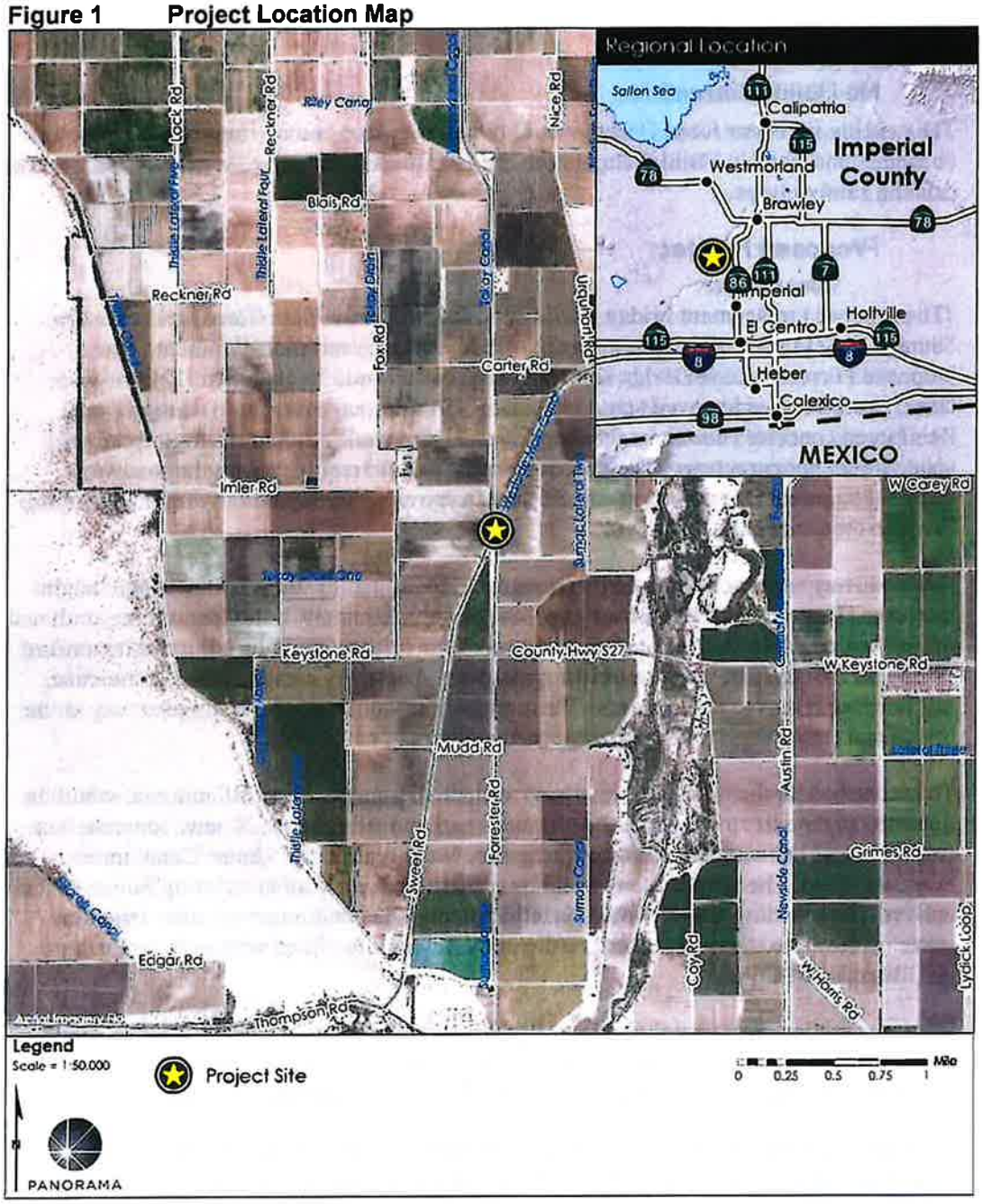
Project Purpose and Need

The purpose of the proposed project is to replace the existing, structurally deficient bridge with a modern bridge that would satisfy current design and seismic standards. Forrester Road currently carries an Average Daily Traffic (ADT) of 11,714 vehicles of which 31 percent is truck traffic and has a projected ADT of 15,968 vehicles for 2035 (Caltrans, 2018). The existing bridge does not meet minimum clear width criteria for American Association of State Highway and Transportation Officials (AASHTO) or California Department of Transportation (Caltrans) standards based on the current and projected future ADT. The bridge railing, transitions, approach railing, and terminal sections also do not meet current design standards. In addition, the existing bridge has several design features that are seismically vulnerable and would have a questionable safety performance during an earthquake (Quincy Engineering, 2020).

Embankment erosion has been documented for the existing bridge since 1980. Loss of abutment fills has exposed the abutment piles and undermined the roadway fill behind the abutments. The bridge railings and approach guardrails on both sides of the bridge have also experienced damage.

The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards. Rehabilitation and retrofitting of the existing bridge were evaluated as options and were deemed not cost effective compared to complete replacement.

Figure 1 Project Location Map



Source: (ESRI, 2019) (Quincy Engineering, 2020)

Project Alternatives

No Build Alternative

The existing Forrester Road Bridge would remain in place and no improvements would be made under the No Build Alternative. The No Build Alternative would not address the existing safety issues.

Proposed Project

Description

The proposed replacement bridge would span the Westside Main Canal and cross the Sumac Canal in the same location as the existing bridge and road alignment. The proposed Forrester Road Bridge and approach roads would include two 12-foot-wide lanes, two 8-foot-wide paved shoulders, and a 70-mile-per-hour (mph) design speed. Reinforced concrete abutments on deep foundations would support a single-span steel plate girder superstructure. The proposed bridge would require raising the roadway vertical alignment by approximately 3.5 feet to provide the required hydraulic clearance between the canal and the bridge.

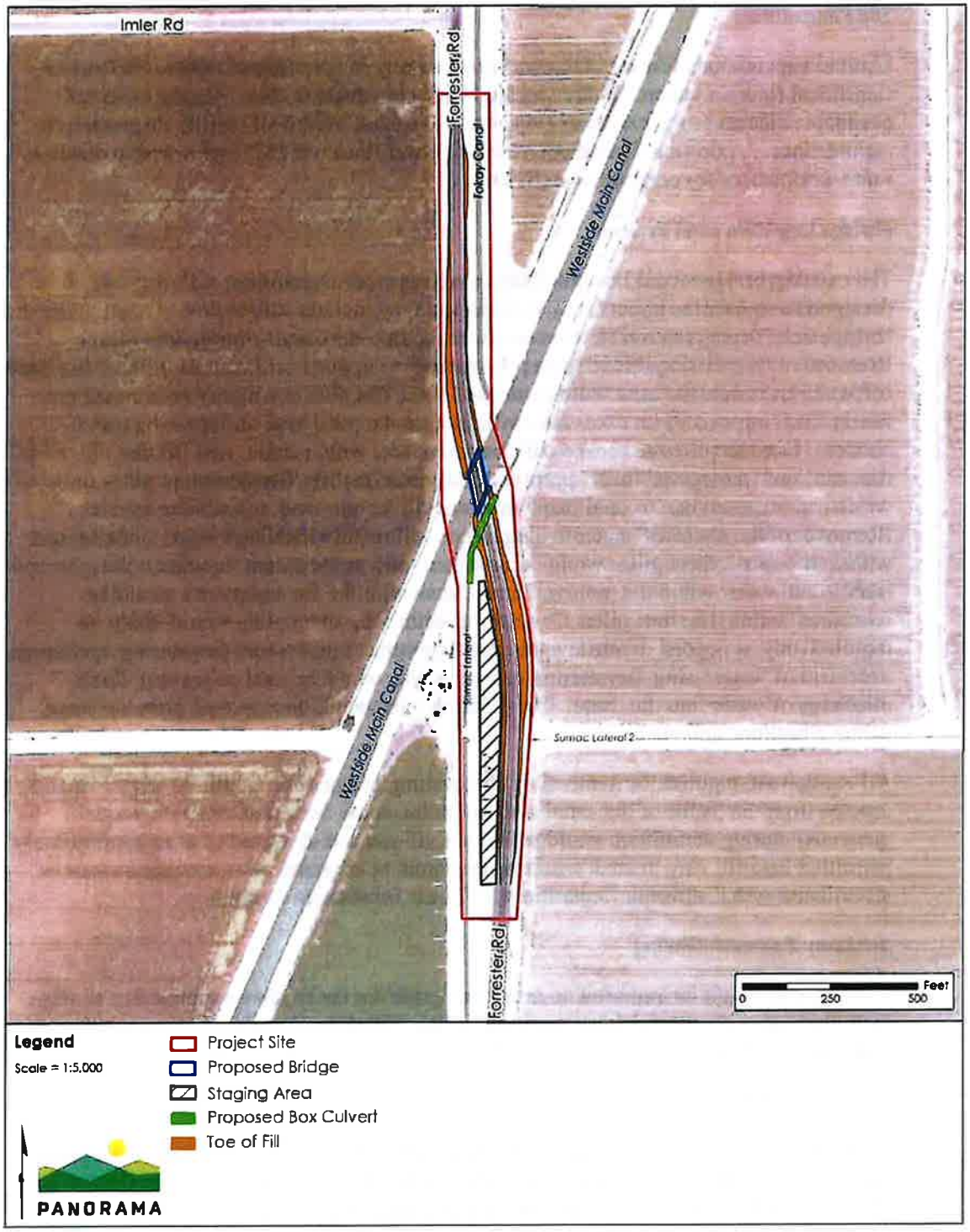
New roadway approaches would be constructed to adjust for the 3.5-foot bridge height increase. The grade of the roadway approaches approximately 1,200 feet on the south end of the bridge and 1,000 feet on the north end of the bridge would be adjusted to conform the higher bridge span with the existing roadway, due to the design speed, grade raise, and horizontal curve requirements. The approaches would match the traveled way at the bridge and taper down to the existing road width.

To accommodate the change in roadway vertical alignment, clean fill material would be imported to the site to construct the elevated road and side slopes. A new, concrete box culvert would be installed to convey irrigation water within the Sumac Canal under Forrester Road. The new culvert would be constructed south of an existing Sumac Canal culvert. The existing culvert would be either demolished and removed after irrigation water is moved to the new culvert, or the culvert would be filled with cellular concrete and abandoned in place.

The proposed project would require a slight realignment of the IID access roads due to the elevated vertical alignment. Access to these roads for IID maintenance would be preserved throughout construction and operation of the replacement bridge.

Existing drainage patterns on the bridge and roadway approaches would be retained. Water would continue to sheet flow off the proposed roadway and bridge into current swales and percolated or discharged to an IID drainage facility. Drainage would not be allowed to flow directly off the bridge into the Westside Main Canal or Sumac Canal.

Figure 2 Project Elements



Source: (ESRI, 2019) (Quincy Engineering, 2020)

CONSTRUCTION

Site Preparation

Limited vegetation is found in the area and is mostly in the channel banks. No trees or significant riparian vegetation are located in the construction area. Staging areas are available adjacent to the existing bridge and would not inhibit IID utility inspection or maintenance. A portion of existing overhead power lines would be relocated to create a safe work buffer for construction activities.

Bridge Demolition and Removal

The existing bridge would be demolished and removed. Demolition activities would be designed to minimize impacts to the canals and may include suspension of a net under the bridge deck during removal to prevent discharge into the canals during demolition. Removal of the existing bridge piers pile extension supports will consist of breaking them off at or just under the canal bottom surface level. The piles are lightly reinforced and a lateral load imposed by an excavator will fracture the piles near or below the canal bottom. Once the piles are broken off, the excavator, with a chain, will lift the pile out of the canal and transported to an appropriate disposal facility. The abutment piles, most of which are exposed due to canal bank erosion, will be removed in a similar manner. Removal of the abutment concrete diaphragm will require localized water containment within the canal. Sheet piles would be installed, only to the extent to contain the concrete rubble and water within the removal area. Excavation for the abutments would be contained within the sheet piles. Dewatering within the sheet piles would likely be required only as needed to retrieve the concrete ruble. Appropriate dewatering operations, treatment of water using dewatering bags or tanks, would be used to prevent direct discharge of water into the canal. The existing piles would be removed from the canal using a backhoe and chain.

All equipment required for removal of the existing bridge deck would be staged on and operate from the banks of the canal and not in the canal. Steel and concrete waste generated during demolition would be hauled off-site and disposed of at an appropriately permitted landfill. Any treated wood waste would be disposed of as managed waste in accordance with California Department of Toxic Substances Control.

Roadway Approach Grading

Fill material would be imported to create the grade for the roadway approaches to align with the higher elevation of the proposed bridge. Fill slopes would be constructed at an approximate 2:1 (horizontal: vertical) slope.

Installation of New Bridge

Depending on the method of dewatering (e.g., seal course, water pumping), steel piles may be driven into the canal banks as anchor support for the abutments. Installation of the new abutments would include some excavation at each canal bank. Ready mix concrete trucks would be used to pour the pile caps and abutments.

Cranes staged off the existing road alignment would most likely be used to place the steel girders that would span the entire length of the bridge. The concrete end diaphragm would be poured first and then permanent metal forms would be placed and connected to the girders in each bay. After the deck is poured and cured, bridge barriers and approach railings would be installed. The bridge would then be opened to public traffic.

Schedule and Detours

Construction activities would begin during 2023 and last 4 months. Traffic on Forrester Road would be detoured to nearby arterial roads for the duration of construction. A detour would be provided on nearby roadways and signs erected to direct traffic. Detour roads would be assessed for adequacy to support the increased traffic during construction of Forrester Road Bridge. Construction would allow access to adjacent parcels for landowners during operations.

Regulatory Setting

Federal Laws and Requirements

Clean Water Act

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the Waters of the United States (U.S.) from any point source unlawful unless the discharge is in compliance with a National Pollution Discharge Elimination System (NPDES) permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of storm water from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.

Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below).

Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of storm water from industrial/construction and Municipal Separate Storm Sewer Systems (MS4s).

Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The U.S. Army Corps of Engineers (USACE) issues two types of 404 permits: Standard and General permits. For General permits there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. For Standard permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency's (USEPA) Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the USEPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no

practicable alternative which would have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that would have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from the USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

State Laws and Requirements

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just Waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or WDRs), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

National Pollution Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer Systems (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of storm water dischargers, including MS4s. The USEPA defines an MS4 as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over storm water, that are designed or used for collecting or conveying storm water." The SWRCB has identified Caltrans as an owner/operator of an MS4 pursuant to federal regulations. Caltrans' MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for five years, and permit requirements remain active until a new permit has been adopted.

Caltrans' MS4 Permit, currently under revision, contains three basic requirements:

Caltrans must comply with the requirements of the Construction General Permit (CGP) (see below);

Caltrans must implement a year-round program in all parts of the State to effectively control storm water and non-storm water discharges; and

Caltrans storm water discharges must meet water quality standards through implementation of permanent and temporary (construction) Best Management Practices (BMPs) to the Maximum Extent Practicable, and other measures as the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in storm water and non-storm water discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project will be programmed to follow the guidelines and procedures outlined in the latest SWMP to address storm water runoff.

Construction General Permit

The CGP (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ), regulates storm water discharges from construction sites which result in a Disturbed Soil Area (DSA) of 1 acre or greater, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). In accordance with Caltrans' Standard Specifications, a Water Pollution Control Plan (WPCP) is necessary for projects with DSA less than 1 acre.

By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 1 acre must comply with the

provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop a SWPPP; to implement sediment, erosion, and pollution prevention control measures; and to obtain coverage under the CGP.

The CGP separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project would require compulsory storm water runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

Section 401 Permitting

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the United States must obtain a 401 Certification, which certifies that the project will be in compliance with State water quality standards. The most common federal permit triggering 401 Certification is a CWA Section 404 permit, issued by USACE. The 401 permit certifications are obtained from the appropriate RWQCB, dependent on the project location, and are required before USACE issues a 404 permit.

In some cases, the RWQCB may have specific concerns with discharges associated with a project. As a result, the RWQCB may issue a set of requirements known as WDRs under the State Water Code (Porter-Cologne Act) that define activities, such as the inclusion of specific features, effluent limitations, monitoring, and plan submittals that are to be implemented for protecting or benefiting water quality. WDRs can be issued to address both permanent and temporary discharges of a project.

Regional and Local Requirements

The Colorado River RWQCB has jurisdiction over the Colorado River Basin Region (Basin), 20,000 square miles of arid land in the southern portion of California, bordering Mexico. The Basin contains two significant water bodies, the Colorado River and the Salton Sea.

The Colorado River RWQCB prepared the Water Quality Control Plan (Basin Plan) to provide definitive guidelines and direction to optimize the beneficial uses of state waters in the Basin. The Basin Plan details beneficial water uses, water quality objectives for surface and groundwater in the Basin including Westside Main Canal as part of the Imperial Valley Drains, and an implementation program. The implementation program details the actions necessary to achieve the water quality objectives, a schedule for the actions, and information regarding monitoring to determine compliance.

Affected Environment

This section describes the regional and local environment where the proposed project occurs, including hydrologic conditions, soil types, and water quality.

General Setting

The proposed project is located within the Imperial Valley, which extends between the Salton Sea and Mexico. The Imperial Valley is below sea level and the climate is characteristic of an arid Southern California desert with high temperature fluctuations and low annual rainfall. The project is located within the Salton Sea Transboundary Watershed (USGS Salton Sea Hydrologic Unit 18100200). The Salton Sea is the lowest point in the surrounding area, water either evaporates or sinks into groundwater. Regional surface water resources include the Salton Sea, Colorado River, Alamo River, New River and a series of irrigation facilities managed by IID for agricultural production. Surface water in the region drains northward toward the Salton Sea. The project site is underlain by the Imperial Valley Groundwater Basin.

Population and Land Use

The land uses in the project vicinity and downstream include agricultural production. The system of irrigation ditches operated by IID is designed to provide irrigation water to the agricultural fields in the area. The Westside Main Canal is one of three main distribution canals from the All-American Canal that pulls water directly from the Colorado River. Westside Main Canal runs along the western edge of agricultural area within the Imperial Valley with open space areas including the Yuha Desert Recreation Area to the west of the canal. Brawley is the nearest community to the project site. Brawley has estimated populations of 26,416 (U.S. Census Bureau, 2020).

Topography

The project area is relatively flat and slopes gradually to the north toward the Salton Sea.

Hydrology

Regional Hydrology

The Salton Sea is a jurisdictional water (Colvin v. United States, 2001). The Salton Sea is fed by agricultural runoff, from the New River, the Alamo River, and IID water facilities that drain into the closed basin. The New River originates in Mexico and flows to the north into the Salton Sea. The Salton Sea is located approximately 20 miles downstream and to the north of the project site. The closest portion of the New River is approximately 0.80 miles to the east of the project site. The New River is recognized for being heavily impaired as it crosses the Mexico border and is further impaired by agricultural pollution as it passes through the Imperial Valley (RWQCB, 2020).

Local Hydrology

Water from the Colorado River flows into the All American Canal which is located along the boundary of Imperial County and Mexico. The All American Canal feeds several, large irrigation canals including the Westside Main Canal, which flows underneath the existing Forrester Road Bridge. The Westside Main Canal feeds the Sumac Canal, which

runs north-south between Edgar Road and the Forrester Road Bridge. The Sumac Canal connects to several smaller canals.

Precipitation and Climate

The nearest meteorological station to the project site is located in Brawley, CA (Station 041048). Average annual precipitation in Brawley is 6.65 inches over the period of record (1910 to 2007). Average daily temperature ranges from a low of 39 degrees Fahrenheit (F) in January to a high of 107 degrees F in July (WRCC, 2021).

Surface Waters

Surface waters within the project area include the Westside Main Canal, Sumac Canal, Tokay Canal, and Sumac Lateral 2 as shown on Figure 2.

The Westside Main Canal flows year-round with average flows ranging from 300 cubic feet per second (cfs) to 600 cfs. Flows typically never drop below100 cfs. Nearly all of the water from the Westside Main Canal is used as agricultural water in the Imperial Valley (Rodrigues, 2022). Water from the All-American Canal flows into the Westside Main Canal at the Mexican border, which continues North, terminating at the Trifolium Extension and Main Canal, approximately 0.5 mile north of the intersection of Highway 78 and Highway 86 (IID, Service Area Plan, 2020). The Trifolium Extension flows north to Trifolium Extension Lateral 7 and terminates at the Salton Sea.

The Sumac Canal flows north from the Westside Main Canal near the intersection of Edgar Road and Forrester Road. It feeds multiple laterals, including Sumac Lateral 2, and connects to the larger IID system (IID, 2019). The Tokay Canal begins north of Westside Main Canal at Forrester Road and continues to Main Canal approximately 5.8 miles north of Westside Main Canal.

Flood Plains

The local water conveyance facilities are controlled by IID. The project site is not located within a 100-year floodplain (FEMA, 2008).

Municipal Supply

The water within the project area canals is used for agricultural production and is not a source of drinking water. The nearby community of Brawley utilizes treated water from the Central Main Canal as their public drinking water source (Brawley, 2020).

Groundwater Hydrology

The Imperial Valley Groundwater Basin is bounded on the east by the Sand Hills, on the west by Fish Creek and Coyote Mountains and to the north by the Salton Sea, which is the discharge point for the groundwater basin. The physical groundwater basin extends south into Baja California. The basin includes two aquifers that are separated by a semi-permeable aquitard that averages 60 feet thick across the basin. The lower aquifer is 380 feet thick on average and the upper aquifer is an average of 200 feet thick. The primary source of recharge is from unlined irrigation canals due to the low rate of rainfall in the region. The groundwater storage capacity of the basin has been estimated at approximately 14-million-acre feet. Total Dissolved Solids (TDS) levels in the basin

range from 498 to 7,280 mg/L; public supply wells have an average TDS concentration of 712 mg/L. Groundwater is generally unsuitable for domestic or irrigation purposes without treatment due to high levels of TDS (DWR, 2003).

Geology

The project site lies within the Salton Trough in Southern California near the boundary of the United States of America and Mexico. The Salton Trough was created when the East Pacific rise formed a spreading zone resulting in a graben, or depression, approximately five million years ago. The fault zones within the Salton Trough area include Imperial, Sand Hills, Laguna Salada, San Jacinto, and San Andreas Faults, as well as several other smaller faults (SCEDC, 2013). More recent faulting resulted in uplift and sediment from the Colorado River began filling in the Salton Trough which formed a natural barrier between the Gulf of California and the Salton Sea, approximately four million years ago (Alles, 2011). The region between San Felipe Hills and Santa Rosa Mountains in the Salton Trough has repeatedly filled and dried out with water from the Colorado River (Dorsey, 2006). The project site is located in the southwestern portion of the Salton Trough. The site is on Quaternary lake deposits (DOC, 1962).

Soils

Soils on the project site are primary Meloland very fine sandy loam and Vint and Indio very fine sandy loams. These soils are moderately well drained with very low runoff (NRCS, 2021).

Biological Communities

The water resources within the project area consist of irrigation facilities that are operated for agricultural production. No special-status fish are known to occur in these facilities. The upland areas along the irrigation facilities provide habitat for burrowing owl and burrowing owl have been observed in the project area. The channels banks are sparsely vegetated. No special-status plants occur in the channels.

Water Quality Objectives/standards and Beneficial Uses

Water Quality Objectives

The Colorado River RWQCB Basin Plan (Basin Plan) has identified the following water quality objectives for all waters in the Basin (RWQCB, 2020):

> Wherever the existing quality of water is better than the quality established herein as objectives, such existing quality shall be maintained unless otherwise provided for by the provisions of the State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California".

Surface Water Quality Objectives/standards and Beneficial Uses

The Basin Plan includes general surface water quality objectives that apply to all surface waters in the Basin including a numeric limit of 4,000 mg/L TDS on average and 4,500 mg/L TDS maximum in Imperial Valley. The Basin Plan specifies the following objective for sediment: "The suspended sediment load and suspended sediment discharge

rate to surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses".

The Basin Plan includes specific water quality objectives for irrigation supply canals, which apply to Westside Main Canal, Sumac Canal and Sumac Lateral 2. The specific water quality objective requires that herbicide spraying in irrigation canals must be conducted in coordination with the County Agricultural Commissioner, California Department of Fish and Wildlife, and California Department of Health Services (RWQCB, 2020).

The Basin Plan has designated the following surface water beneficial uses for Imperial Valley Drains, which includes the Westside Main Canal, Sumac Canal and Sumac Lateral 2 (RWQCB, 2020):

Freshwater Replenishment (FRSH): Uses of water for natural or artificial maintenance of surface water quantity or quality.

Water Contact Recreation (REC-I)[1]: Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.

Non-Contact Water Recreation (REC-II)[2]: Uses of water for recreational activities involving proximity to water, but not normally involving contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.

Warm Freshwater Habitat (WARM): Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

Wildlife Habitat (WILD): Uses of water that support terrestrial ecosystems including, but not limited to, the preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Preservation of Rare, Threatened, or Endangered Species (RARE)[3]: Uses of water that support habitats necessary, at least in part, for the survival and successful

[1] Unauthorized use, and the only REC I usage that is known to occur is from infrequent fishing activity.

[2] Unauthorized use.

[3] Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California

maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Groundwater Quality Objectives/standards and Beneficial Uses

The Basin Plan identifies qualitative water quality objectives for groundwater within the Basin. The Basin Plan does not include numeric water quality objectives because a detailed investigation of the groundwater basins is required prior to establishing specific water quality objectives (RWQCB, 2020).

The Colorado River RWQCB Basin Plan has designated the following groundwater beneficial uses for the Imperial hydrologic unit:

Municipal and Domestic Supply (MUN): waters are used for community, military, municipal or individual water supply systems. These uses may include but are not limited to drinking water supply.

Industrial Service Supply (IND): waters are used for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization.

Existing Water Quality

Regional Water Quality

IID conducts water quality tests from four water supply locations and many drain locations. The All-American Canal and the three main distribution canals, including the Westside Main Canal are sampled annually. In 2018, the IID implemented an enhanced testing program of twenty-one additional sites to be tested for four years to better characterize the raw water within the Imperial Valley. None of the additional testing sites are within or near the project site. The Westside Main Canal is sampled where the Westmorland Canal passes under the Westside Main Canal, approximately 5.6 miles to the north of the project site.

Westside Main Canal

The water quality sample results for the years 2015 through 2020 indicated substantial increases in metals concentrations within the Westside Main Canal during the monitoring period. Concentrations of several metals, including aluminum, iron, and manganese, are consistently above maximum contaminant (MCL) standards set for drinking water[4]. TDS was consistently under the MCL while turbidity substantially exceeded the MCL during the monitoring period. The pH levels are also consistent, between 8.1 and 8.3 for all years

Department of Fish and Game on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Board.

[4] The Westside Main Canal is not used for drinking water.

within the monitoring period. (CLSB, 2015) (CLSB, 2016) (CLSB, 2017) (CLSB, 2018) (CLSB, 2019) (CLSB, 2020)

List of Impaired Waters

Pollutants in the Salton Sea, New River, and IID drains in Imperial Valley exceed water quality standards. These water bodies are identified by SWRCB on the 2018 303(d) list of impaired water bodies. The 2018 303(d) list was approved by the USEPA in 2019. The sources of impairment for each 303(d) listed water body in the project area and downstream are identified in Table 1 below.

The Westside Main Canal, Sumac Canal and Sumac Lateral 2 are not specifically identified as polluted water bodies necessitating listing on the 303(d) list. However, these water bodies are considered within the Imperial Valley Drains listing for three pollutants, selenium, which originates from the Upper Basin Portion of the Colorado River, polychlorinated biphenyls (PCBs) and four pesticide compounds from agricultural runoff within the Imperial Valley (SWRCB, 2018). The Westside Main Canal, Sumac Canal and Sumac Lateral 2 drain to the New River and the Salton Sea, which are impaired waterbodies.

Table 1 303(d) Listed Water Bodies

Waterway	Pollutant Category	Pollutant
Salton Sea	Pesticides	chlorpyrifos [1]
		DDT (dichlorodiphenyl-trichloroethane) [1]
	Salinity	chloride [1]
		salinity [1]
	Metals/Metalloids	arsenic [1]
	Toxicity	toxicity [1]
	Nutrients	low dissolved oxygen [1]
		nitrogen, ammonia [1]
		nutrients [1]
	Pathogens	Enterococcus [1]
New River	Pesticides	chlordane [1]
		chlorpyrifos [1]
		DDT (dichlorodiphenyl-trichloroethane) [1]
		diazinon [1]
		dieldrin [1]
		malathion [1]
		HCB (hexachlorobenzene) [1]
		toxaphene [1]
	Salinity	chloride [1]
	Other Organics	PCBs (polychlorinated biphenyls) [1]
		naphthalene [1]
	Metals/Metalloids	selenium [1]
		mercury [1]
	Nutrients	nutrients [1]
		ammonia [1]
	Toxicity	toxicity [1]
Imperial Valley Drains	Other Organics	PCBs (polychlorinated biphenyls) [1]

Waterway	Pollutant Category	Pollutant
	Metals/Metalloids	selenium [1]
	Pesticides	chlordane [1]
		DDT (dichlorodiphenyl-trichloroethane) [1]
		dieldrin [1]
		toxaphene [1]

1 Pollutant is not meeting standards and a TMDL is required but has not been completed

2 Pollutant is not meeting standards but pollutant is addressed with USEPA approved TMDL

Source: (SWRCB, 2018)

Areas of Special Biological Significance (ASBS)

ASBS include 34 ocean areas that are monitored and maintained for water quality by the State Water Resources Control Board (SWRCB, 2017). Water bodies in the project area are inland waters that do not drain to the Pacific Ocean. No Areas of Special Biological Significance are located in the project area.

Environmental Consequences

Introduction

This chapter provides an evaluation of the potential water quality impacts from construction of the proposed project and the methodology used to assess the impacts.

Potential Impacts to Water Quality

Anticipated changes to the Physical/Chemical Characteristics of the Aquatic Environment

Substrate

The channel bed of the Westside Main Canal is earthen. The Sumac Canal and Sumac Lateral 2 are concrete lined. No change to the lining of the water bodies would occur as part of the proposed project, although an existing culvert conveying the Sumac Canal under Forrester Road would be replaced in-kind.

Currents, Circulation or Drainage Patterns

Runoff from the project site has the potential to flow into Westside Main Canal, Sumac Canal and Sumac Lateral 2. The proposed project would not change the gradient of the channel, or drainage patterns. The new bridge and approach roads will be designed such that runoff will sheet flow to existing swales and percolated or discharged to an IID drainage facility.

Suspended Particulates (Turbidity)

Construction activities could introduce suspended particulates (turbidity) to Westside Main Canal, Sumac Canal and Sumac Lateral 2. Turbidity could increase during construction within the canal including removal of the existing piles and dewatering of the area around the bridge abutments.

The proposed project would not affect the design of the canals and would not increase turbidity during operation.

Oil, Grease, and Chemical Pollutants

Construction activities could introduce oil or grease to Westside Main Canal, Sumac Canal and Sumac Lateral 2 from construction vehicles and equipment working in and adjacent to the waters and during equipment operation and maintenance near the canals. Concrete washout or debris could enter the adjacent water bodies during construction of the replacement bridge.

The proposed project would not increase traffic over the Forrester Road Bridge and would not increase the introduction of oil, grease, or chemical pollutants to the water bodies during operation.

Temperature, Oxygen Depletion, and Other Parameters

Construction workers and activities could introduce litter and debris into the nearby water bodies. Dewatering of an area confined by sheet piles would be expected to occur during

construction. Discharge of water into water bodies could affect temperature. Temperature, litter, and debris are anticipated to be pollutants of concern for the aquatic environment from the proposed project during construction.

The proposed project would not affect oxygen content in the water bodies during construction or operation. The proposed project would not affect temperature or increase litter and debris in the water bodies during operation.

Flood Control Functions

The project site is not in a 100-year flood zone. The proposed project would not affect any IID levees or any flood control facilities located in the area.

Storm, Wave and Erosion Buffers

Wetlands serve as buffer zones that shield upland areas from wave actions, storm damage and erosion, per 40 CFR § 230.41. No wetlands occur in the project area and the water bodies in the project area consist of man-made irrigation canals and drainage features. These water bodies do not provide, storm wave or erosion buffers. The proposed project would have no effect on storm, wave, or erosion buffers.

Erosion and Accretion Patterns

The channel bed of the Westside Main Canal is earthen. The Sumac Canal and Sumac Lateral 2 are concrete lined. The proposed project would not increase the flow or velocities into the water bodies that bisect or are adjacent to the project site because they are irrigation canals and the operation of the canals would not be affected by the proposed project.

Aquifer Recharge/Groundwater

The proposed project would increase impervious surfaces by less than 0.25 acre. However, no groundwater is located in the construction area. As such, the proposed project would therefore not affect aquifer recharge or groundwater resources.

Baseflow

Baseflow, also referred to as groundwater flow or dry-weather flow, is the streamflow resulting from precipitation that infiltrates into the soil and eventually moves through the soil to the stream channel. The region receives less than 3 inches of precipitation annually, which would result in little to no baseflow in the project area. All waters within the project area are conveyed through man-made irrigation canals. The proposed project would not affect baseflow.

Anticipated Changes to the Biological Characteristics of the Aquatic Environment

Special aquatic sites

The closest large freshwater forested/shrub wetlands are located along the New River, approximately 0.9 mile to the east of the project site. A small portion of tamarisk shrub habitat was indicated south of the bridge between the Westside Main Canal and Sumac Canal, outside of the disturbance area. The project would not affect any wetland habitat or special aquatic sites.

Habitat for Fish and Other Aquatic Organisms

Fish Passage (Beneficial Uses)

The Imperial Valley Drains (including Westside Main Canal, Sumac Canal and Sumac Lateral 2) are designated as warm freshwater habitat (WARM) in the Basin Plan (RWQCB, 2020). The Westside Main Canal provides poor habitat for fish due to high water velocity and lack of aquatic vegetation. The All-American Canal has been reported to support fish coming from the Colorado River and also from fish stocking within the system canals although fish surveys have not been conducted within the main IID canal system (CH2MHill, 2002). The fish communities are assumed to be similar in composition within the system. The Salton Sea, which is downstream from the project site, is also designated as WARM. The proposed project would replace an existing bridge and would not create an obstruction to fish passage. Conditions after construction would not be substantially differ from existing conditions. The proposed project would not impact to fish passage.

Wildlife Habitat

Wildlife Passage (Beneficial Uses)

The Imperial Valley Drains (including Westside Main Canal, Sumac Canal and Sumac Lateral 2) are designated as wildlife habitat (WILD) in the Basin Plan (RWQCB, 2020). The project area provides foraging and breeding habitat for some migratory bird species. The proposed design of the proposed replacement bridge would result in less infrastructure located within the canal. Conditions for wildlife after construction would not be measurably different from existing conditions. The proposed project would not impact to wildlife passage.

Endangered or Threatened Species

The Imperial Valley Drains (including Westside Main Canal, Sumac Canal and Sumac Lateral 2) and the Salton Sea, which is downstream from the project site, have been identified as areas for preservation of rare, threatened, or endangered species (RARE) in the Basin Plan (RWQCB, 2020). The Salton Sea (20 miles downstream of the project site) provides habitat for the state and federally endangered fish, the desert pupfish (*Cyprinodon macularius*) and razorback sucker (*Xyrauchen texanus*), an bird species, the Yuma Ridgway's (clapper) rail (*Rallus obsoletus yumanesis)* (USFWS, 2021). No federally endangered or threatened species are known to occur in the project area. The proposed project construction and operation would not affect any of the three listed species because of the small size of the project and distance between the project and the Salton Sea.

The proposed project would replace an existing bridge. Conditions after construction would not be substantially different from existing conditions. The proposed project would not be expected to have any impact to endangered or threatened species.

Invasive Species

The project site is largely void of vegetation and the canal banks are routinely cleared by IID maintenance. The project would not introduce invasive aquatic species because no boats or vessels that could contain invasive aquatic species would be used during construction.

Anticipated Changes to the Human Use Characteristics of the Aquatic Environment

Existing and Potential Water Supplies; Water Conservation

Water used during construction activities for dust control would be obtained from the Westside Main Canal, dependent upon IID consent. The limited volume of water required for construction would not significantly affect water supplies or conservation strategies.

Recreational or Commercial Fisheries

The project site is not adjacent to any recreational or commercial fisheries. Although limited, unauthorized recreational fishing does occur within Imperial Valley Drains. The proposed project would not affect recreational or commercial fisheries.

Other Water Related Recreation

The project site is not adjacent to any other water related recreation. Although recreation does occur within Imperial Valley Drains, this use is not authorized. The proposed project would not affect water related recreation.

Acsthetics of the Aquatic Ecosystem

Trash, debris, and sediment from human activity can detract from the aesthetics of a waterway. The Westside Main Canal, Sumac Canal and Sumac Lateral 2 do not provide substantial aesthetic value under existing conditions. The proposed project would not increase vehicle or pedestrian traffic in the vicinity. The proposed bridge would appear similar to the existing bridge and would not adversely affect local aesthetics.

Parks, National and Historic Monuments, National Seashores, Wild and Scenic Rivers, Wilderness Areas, etc.

No national or historic monuments, national seashores, or wild or scenic rivers are located in the vicinity of the project site. The Westside Main Canal and Sumac Canal are eligible for listing on the National Register of Historic Places, however, the proposed project would not affect listing eligibility of either structure. The Sonny Bono Salton Sea National Wildlife Refuge is located along the southeastern shoreline of the Salton Sea, approximately 20 miles downstream from the project site. The proposed project would not impact parks, national and historic monuments, national seashores, wild and scenic rivers, or wilderness areas.

Traffic/Transportation Patterns

Truck traffic to the project site could temporarily increase during construction of the proposed project. However, current truck traffic is estimated at 31 percent of the average daily traffic (Caltrans, 2019). Detours around the project site would change traffic patterns temporarily. The temporary detour would not substantially change traffic patterns in the area.

The proposed project would replace an existing bridge. Traffic conditions after construction would be the same as existing conditions. The proposed project would not increase traffic to or through the project site.

Energy Consumption of Generation

Water bodies in the project area are not used for energy generation. Energy use for construction would be temporary and would involve a limited volume of equipment due to the small scale of the project.

Navigation

Water bodies in the project area are not used for navigation. The proposed project would not impact navigation.

Safety

The proposed project would increase safety by replacing an existing, structurally deficient bridge with a wider bridge, constructed to satisfy current design standards. The proposed project would have a beneficial impact on safety.

Short-Term Impacts During Construction

Physical/Chemical Characteristics of the Aquatic Environment

Construction activities within and adjacent to the receiving water bodies have the potential to result in erosion, discharge of debris, and increase turbidity and sedimentation. Work within the Westside Main Canal includes removal and demolition of the existing bridge and piles. The new Forrester Road Bridge would fully span the Westside Main Canal. The project includes installation of netting to catch any debris from the bridge during demolition. Sediment could be disturbed within the channel bottom during removal of the piles and the channel bed and bank would be disturbed during removal and channel bank during replacement of the bridge abutments. The dewatering of the work area would be implemented during removal of the piles. Construction vehicles and equipment could leak petroleum products into the water bodies. Construction waste from bridge demolition, concrete pouring, bridge installation, and personnel could enter the water bodies. Discharge of water during dewatering for removal of the bridge piles could increase sedimentation, alter water temperature, or change the water chemistry. Portable sanitary facilities provided for construction workers could be a source of sanitary waste. Temporary impacts from pollutants of concern to water quality could occur during construction of the proposed project.

Discharge of surface or groundwater during the construction must comply with General Waste Discharge Requirements and General NPDES Permit for Low Threat Discharges to Surface Waters within the Basin (Order No. R7-2013-0011, NPDES No. CAS617002) and any subsequent updates to the Permit at the time of construction. This Waste Discharge Permit addresses temporary dewatering operations during construction (i.e., dewatering of the area for the bridge pile removal). Dewatering BMPs must be used to control sediment and pollutants, and the discharges must comply with the WDRs issued by the Colorado River RWQCB.

Storm water discharges from construction sites that disturb at least 1 acre must comply with the CGP and any subsequent updates to the CGP at the time of construction. To comply with the CGP, the proposed project would be required to prepare and implement a SWPPP and determine a risk level based on potential erosion and transport to receiving waters. The SWPPP will identify temporary BMPs to address the potential temporary impacts to water quality. The BMPs identified in the project SWPPP will include

measures such as temporary soil stabilization measures, linear sediment barriers (i.e. silt fence, gravel bag berms, fiber rolls), and construction site waste management (i.e. concrete washout, construction materials storage, litter/ waste management). Implementation of BMPs as required by applicable permits during construction activities would reduce runoff of pollutants of concern into nearby water bodies. Short-term water quality impacts caused by the construction of the proposed project would be reduced by implementation of BMPs as defined in the SWPPP.

Biological Characteristics of the Aquatic Environment

The receiving water bodies have beneficial uses as warm freshwater habitat and for wildlife, including rare, threatened, and endangered species. As described in detail above, the Westside Main Canal, Sumac Canal and Sumac Lateral 2 do not provide habitat for rare, threatened, and endangered species wildlife passage. The Westside Main Canal does support passage of common and nonnative fish species. Downstream from the water bodies, the Salton Sea provides habitat for fish and wildlife, including threatened and endangered species dependent upon aquatic resources. Sediment from construction activities could increase turbidity locally but would not affect habitat 20 miles downstream at the Salton Sea. Short-term water quality impacts caused by the construction of the proposed project would not affect threatened or endangered species.

Human Use Characteristics of the Aquatic Environment

The receiving water bodies have beneficial uses for recreational use. However, as described above, any recreational use of these water bodies is unauthorized. Project construction activities could contribute trash, debris, and sediment from construction activities that could affect water resources in the immediate vicinity. The limited amount of trash, debris, or sediment that could be produced by the proposed project would not affect use of recreational areas at the Sonny Bono Salton Sea National Wildlife Refuge approximately 20 miles northeast of the project site. Short-term water quality impacts caused by the construction of the proposed project would not affect recreation.

Long-Term Impacts During Operation and Maintenance

Physical/Chemical Characteristics of the Aquatic Environment

The proposed project would widen the existing Forrester Road approaches. The widened roadway would increase impervious surfaces by less than 0.25 acre. Although the impervious surface would increase due to the widening of the roadway approaches, the increase in impervious surface as a result of the proposed project is not substantial and would not measurably affect groundwater recharge or pollutant loading. Vehicle capacity of the road and bridge would not increase, and the proposed project would not generate an additional source of traffic. As such, vehicle trips would not be expected to increase and there would be no additional pollutant loading. No long-term water quality impacts from pollutants of concern would occur.

Biological Characteristics of the Aquatic Environment

As described in detail above, the road and bridge would not affect fish passage, habitat for wildlife passage, or suitable habitat for threatened or endangered species. Use of the road and bridge on the project site would not increase after construction. Biological resources dependent upon aquatic resources adjacent to or downstream from the project

site would not be impacted during operation of the proposed project. No long-term water quality impacts from pollutants of concern would occur.

Human Use Characteristics of the Aquatic Environment

The receiving water bodies have beneficial uses for recreational use. However, as described above, any recreational use of these water bodies is unauthorized. Use of the road and bridge on the project site would not increase after construction. No long-term water quality impacts from pollutants of concern would occur.

Alternative Impact Analysis

Impact Assessment Methodology

The analysis below identifies the differences between the existing conditions (No Build Alternative) and the proposed project with respect to water quality impacts. The WQAR takes the following into consideration.

Pollutant sources (changes in land uses)

Changes in the amount of impervious surface area and the relationship to the amount of runoff (increase or decrease)

Application of BMPs (number of BMPs, new technologies, effectiveness)

Discharges into impaired waters (listed pursuant to Section 303(d) of the CWA)

No Build Alternative

No improvements other than routine bridge maintenance would occur under this alternative.

This alternative would not increase impervious surfaces. Existing runoff of pollutants of concern into receiving waters would remain the same. This alternative would not result in short-term or long-term water quality impacts. The project purpose to construct a safe bridge that satisfies current design standards and is capable of carrying current legal and permitted vehicular loads would not be achieved. The project objective to provide safe passage for the public over the Westside Main Canal would not be achieved.

Cumulative Impacts

No projects are proposed in the immediate vicinity of the project site that could potentially affect water quality. No cumulative impact on water quality or water resources would occur as a result of the proposed project.

Avoidance and Minimization Measures

The Caltrans Storm Water Management Plan (SWMP) describes BMPs and practices to reduce the discharge of pollutants associated with the storm water drainage systems of State highways, facilities, and activities. Construction site BMP fact sheets are included in Appendix A. The following measures have been identified to minimize impacts to water resources and water quality:

WQ-1 If dewatering is required, construction site dewatering must comply with the provisions of the NPDES Permit for General Waste Discharge Requirements for Low Threat Discharges to Surface Waters within the Colorado River Basin Region (Order No. R7-2013-0011, NPDES No. CAS617002) and any subsequent updates to the Waste Discharge Permit at the time of construction.

WQ-2 The proposed project will comply with the CGP and any subsequent updates to the CGP at the time of construction by preparing and implementing a SWPPP to address all construction-related activities, equipment, and materials that have the potential impact water quality for the appropriate Risk Level. The SWPPP will identify the sources of pollutants that may affect the quality of storm water and include BMPs to control the pollutants, such as sediment control, catch basin inlet protection, construction materials management and non-storm water BMPs. All work must conform to the Construction Site BMP requirements specified in the latest edition of the Storm Water Quality Handbooks: Construction Site Best Management Practices Manual to control and minimize the impacts of construction and construction related activities, material and pollutants on the watershed. These include, but are not limited to temporary sediment control, temporary soil stabilization, scheduling, waste management, materials handling, and other non-storm water BMPs.

WQ-3 Design Pollution Prevention BMPs will be implemented such as preservation of existing vegetation, slope/ surface protection systems (permanent soil stabilization), concentrated flow conveyance systems such as ditches, berms, dikes and swales, overside drains, flared end sections, outlet protection/ velocity dissipation devices, streambank stabilization, street sweeping and vacuuming, sandbag barrier, stabilized construction entrance, dewatering operations, vehicle and maintenance cleaning, vehicle and equipment fueling, vehicle and equipment maintenance, pile driving, concrete curing, structure demolition, stockpile management, material delivery and storage solid waste management, hazardous waste management, concrete waste management, sanitary and septic waste management, and liquid waste management.

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Preparer Qualifications

Keri Hill, Panorama Environmental, Inc.
B.S. Environmental Science, University of Idaho
12 years of experience in water resource planning.

Appendix A. Construction Site BMP Fact Sheets

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TECHNICAL STUDY - APPENDIX H

Traffic Technical Memorandum

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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ICDPW

TRAFFIC TECHNICAL MEMORANDUM

Date: June 2, 2022

To: Nicole Falvey
Division of Environmental Analysis
California Department of Transportation, District 11
4050 Taylor Street, MS 244
San Diego, CA 92110

Subject: Forrester Road Bridge over Westside Main Canal (58C-0014) Replacement Project
Federal Project No. BRLO-5958(094)

The County of Imperial proposes to replace the existing Forrester Road Bridge over the Westside Main Canal (Br. No. 58C-0014) with a new bridge to address deficiencies of the existing bridge. The existing bridge is a 4-span steel stringer bridge with reinforced concrete deck and is supported by reinforced concrete pile cap bents founded on cast-in-steel shell pile extensions within the canal. Multiple components of the existing bridge do not meet current design standards. Erosion has removed abutment fills, exposing piles and undermining the roadway fill behind the abutments. In addition, several design features are seismically vulnerable and would have a questionable safety performance during an earthquake.

The existing bridge is located within a rural area of the County, approximately 10 miles north of Interstate 8 and approximately 5 miles southwest of Brawley. The bridge spans the Westside Main Canal and the Forrester Road Bridge approach crosses the Sumac Canal, approximately 1,330 feet south of the intersection of Forrester Road with Imler Road. Caltrans classifies Forrester Road as principal arterial in the National Highway System and the County's Circulation Element defines it as a Prime Arterial. However, Forrester Road mimics the characteristics of a Local Collector with two lanes and no medians. Due to its regional significance for the amount of interstate and intercountry (Mexico/USA) truck traffic, it could one day be added to the State Highway System and the National Highways System.

Forrester Road is a paved road approximately 30-feet wide in flat terrain. A traffic count completed by Imperial County in April 2022 reported Forrester Road carrying an average daily traffic (ADT) of 3,808 vehicles (Imperial County, 2022b). Using a standard 2% growth rate, the County estimates an ADT of 3,962 during construction in 2024 and a 20-year design ADT of 5,887 (Imperial County, 2022a). Current American Association of State Highway and Transportation Officials (AASHTO) standards require the total width of traveled way and shoulders to be 32 feet. The County proposes a total clear width of 40-feet on the bridge to meet adopted County standards and accommodate the routine use of the road by oversized agricultural equipment.

The existing bridge is bounded at all four corners by private agricultural lands, existing irrigation canal facilities and overhead power lines. Based on these existing physical site

constraints, the preferred horizontal alignment is to maintain the existing horizontal alignment. Utilizing the existing alignment will minimize the length of approach roadways, minimize the impacts to adjacent utilities, and reduce the project footprint the maximum extent possible. The most practical approach to replace the bridge on the existing alignment is to close Forrester Road for approximately 1,200-feet south and 1,000-feet north of the bridge and detour traffic during construction.

Utilizing a temporary road closure and traffic detour will eliminate the need for staged construction. Staged construction would require the new bridge to be built on an offset alignment to keep part of the existing bridge operational during construction. After constructing a portion of the new bridge, traffic would be transferred to the new bridge portion. The remainder of the existing bridge would then be demolished, and the remainder of the new bridge would be constructed in its place. Single stage construction would reduce the number of construction operations, and in turn, reduce project costs, construction duration, project footprint and avoid impacts to adjacent farmlands. In addition, single stage construction would avoid construction of a temporary bridge that could limit canal access for Imperial Irrigation District (IID) maintenance personnel.

With the existing bridge closed to traffic during construction, the County would establish a regional and local detour for traffic traveling on Forrester Road (Attachment 1). The regional detour is aimed to accommodate all traffic types that typically use Forrester Road to access I-8 from SR78/SR86, or vice versa. The intent of the regional detour is to maintain most of the detoured traffic on state roads. Despite the fact that bridges within the proximity of the project can accommodate vehicles of equivalent size and similar weight to that of the existing Forrester Road Bridge, the regional detour maintains a connection between I-8 and SR78/SR86 without the use of any County bridges.

Table 1 Regional Detour Route Miles

From Intersection	To Intersection	Miles Between Intersections
SR78/SR86 and Center St. (in Westmorland)	SR86 and Main St. (in Brawley)	6.8
SR86 and Main St. (in Brawley)	SR86 and Keystone Rd.	5.3
SR86 and Keystone Rd.	Keystone Rd. and Austin Rd.	1.4
Keystone Rd. and Austin Rd.	Worthington Rd. and Austin Rd.	4.5
Worthington Rd. and Austin Rd.	Worthington Rd. and Forrester Rd.	1.5
	Total Miles	**19.5**

Forrester Road provides local access to agricultural parcels adjacent to Forrester Road. Few residences occur within the project vicinity. Local traffic would have access to private and

agricultural properties adjacent to the project site during construction. Construction operations would provide access to canal maintenance roads for IID personnel at all times.

Local traffic originating from north of Westside Main Canal with destinations south of the Canal (or vice versa) would use the local detour (Attachment A). Two County bridges are located along this route: one on Keystone Road at the New River and the other on Carter Road at the Westside Main Canal. Both of these bridges allow for the safe passage of loads weighing up to 60 metric tons.

Table 2 Local Detour Route Miles

From Intersection	To Intersection	Miles Between Intersections
Forrester Rd. and Carter Rd.	SR86 and Carter Rd.	4.8
SR86 and Carter Rd.	SR86 and Main St. (in Brawley)	2.2
SR86 and Main St. (in Brawley)	SR86 and Keystone Rd.	5.3
SR86 and Keystone Rd.	Keystone Rd. and Forrester Rd.	3.0
	Total Miles	**15.3**

Signage would be placed around both the local and regional detours and project area to minimize the use of private and IID roads by local traffic. It is expected for traffic to use a combination of both regional and local detour routes depending on traffic origin and/or destination. All detour roads are paved and would accommodate large trucks and farm equipment. The County will be reviewing any extra-legal transports during the transportation permit process to ensure the operating rating of any County bridges along the detour routes is not exceeded.

Roads included in the regional and local detours operate at a level of service (LOS) of C or better (Imperial County Transportation Commission, 2013; Imperial County, 2008). The estimated traffic volumes and short construction duration would not impact the LOS of the local County roadways along the detour route or adversely affect operations of the nearby State Highway system.

Detours will be properly signed with appropriate messaging and route-aid finding information. Detour signage and traffic handling devices would meet the latest edition of the California Manual on Uniform Traffic Control Devices standards and be included in the contract documents as part of the bridge replacement project. Notices and public outreach to the affected area would be implemented prior to and during construction. Construction activities and traffic impacts are anticipated to occur over a single construction season, approximately 6 months in duration. Based on the current project schedule, construction is targeted to commence in summer of 2023.

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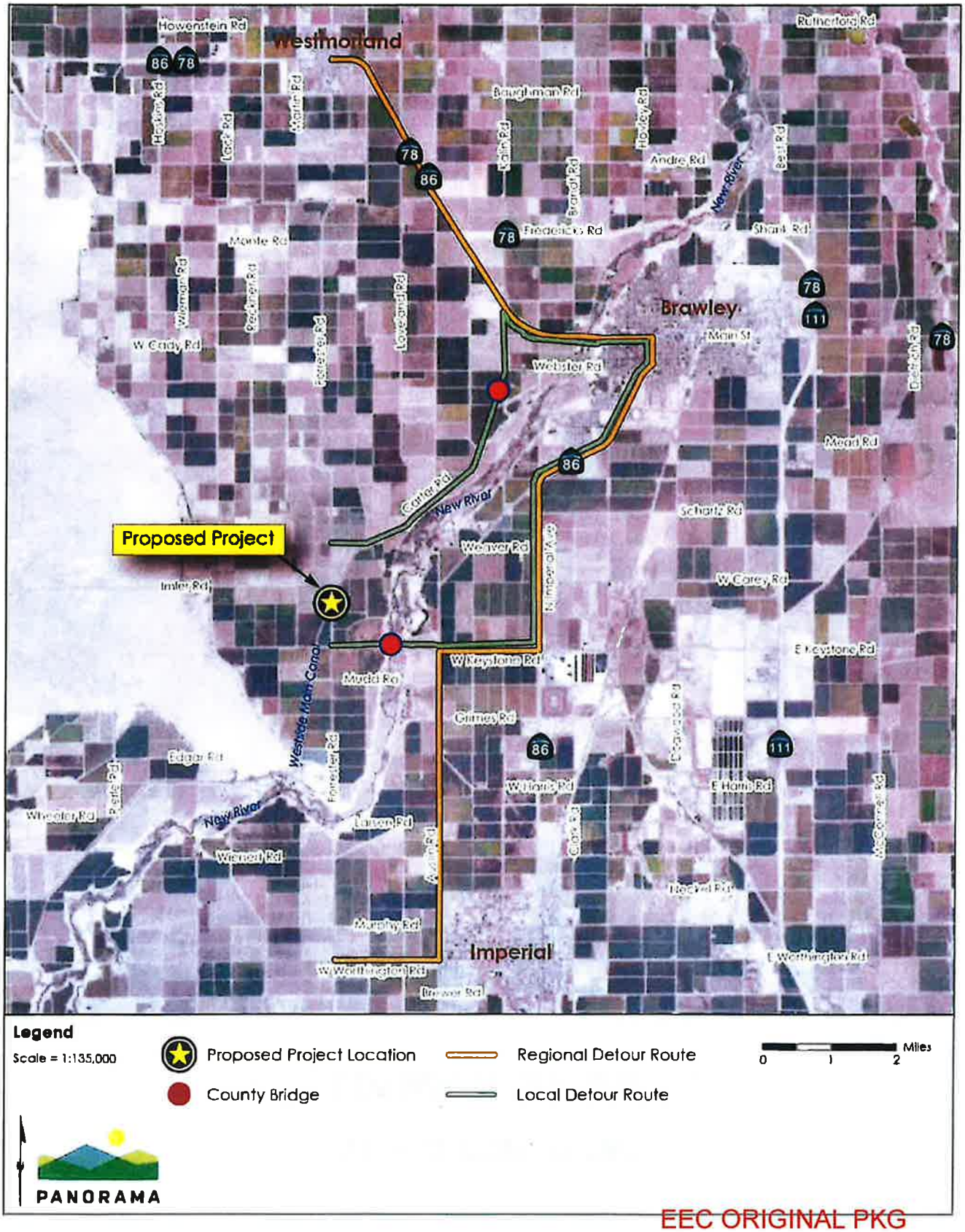
Attachments:

1. Proposed Traffic Detours

Attachment 1: Proposed Traffic Detours

Attachment 1. **Proposed Traffic Detours**



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ATTACHEMENT "A"

COMMENT LETTERS

Mariela Moran

From: Quechan Historic Preservation Officer <historicpreservation@quechantribe.com>
Sent: Tuesday, July 5, 2022 8:09 AM
To: Allison Galindo; Mariela Moran
Cc: ICPDSCommentLetters
Subject: RE: Request for Comments IS22-0025 APN 040-170-010

This email is to inform you that we have no comments on this project.

From: Allison Galindo [mailto:allisongalindo@co.imperial.ca.us]
Sent: Friday, July 01, 2022 5:01 PM
To: Alphonso Andrade; Ana L Gomez; Belen Leon; Carlos Ortiz; Chris Hamilton ; Donald Vargas ; Eric Havens; Esperanza Colio; H. Jill McCormick; Jeff Lamoure; Jolene Dessert; Jordan D. Joaquin; Jorge Perez; Jose Serrano ; Leslie Martinez; Manuel Deleon; Marcus Cuero ; Margo Sanchez; Mario Salinas; Matt Dessert; Miguel Figueroa; Monica Soucier; Ray Loera ; Robert Benavidez ; Robert Menvielle; Rosa Lopez; Ryan Kelley; Sandra Mendivil; Scott Sheppeard ; Vanessa Ramirez; Joseph.mirelez@torresmartinez-nsn.gov; Thomas.tortez@torresmartinez-nsn.gov; lp13boots@aol.com; hhaines@augustinetribe.com; elachppas@lptribe.net; tribalsecretary@quechantribe.com; ljbirdsinger@aol.com; wmicklin@leaningrock.net; historicpreservation@quechantribe.com; frankbrown6928@gmail.com; chairman@cit-nsn.gov; cocotcsec@cocopah.com; info@augustinetribelnsn.gov; tashina.harper@crit-nsn.gov; marcuscuero@campo-nsn.gov; Michelle.R.Lynch@usace.army.mil; Felicia_sirchia@fws.gov; csahagun@blm.gov; julianne.polanco@parks.ca.gov; richard.francis@wildlife.ca.gov; magdalena.rodriguez@wildlife.ca.gov; jose.cortez@waterboards.ca.gov; Kai.Dunn@waterboards.ca.gov; robert.krug@dtsc.ca.gov; roger.sanchez-rangel@dot.ca.gov; Nadim.Shukry-Zeywar@waterboards.ca.gov; Maurice.Eaton@dot.ca.gov; eruedas@chp.ca.gov
Cc: Jim Minnick; Michael Abraham; Rosa Soto; Leslie Martinez; Mariela Moran
Subject: Request for Comments IS22-0025 APN 040-170-010

Good Afternoon,

Request for Comments packet for **IS #22-0025 APN 040-170-010 {Forrester Road Bridge Replacement} Please click on link below for package.**
https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:512d609b-e85b-41c0-adf8-ca302bb0b06b

Comments are due by **July 17th, 2022 at 5:00PM.**

In an effort to increase the efficiency at which information is distributed and reduce paper usage, the Request for Comments packet is being sent to you via this email.

Should you have any questions, please feel free to contact Mariela Moran at (442) 265-1736, or submit your comment letters to ICPDScommentletters@co.imperial.ca.us.

Thank you,

Allison Galindo
Office Assistant III
Imperial County Planning & Development Services
801 Main St.
El Centro, CA 92243
(442)265-1736