PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE
FROM: PLANNING & DEVELOPMENT SERVICES

AGENDA DATE: June 27, 2024
AGENDA TIME: 1:30PM / No.1

Imperial County Public Works Department

PROJECT TYPE: IS #23-0034 SUPERVISOR DIST # 5

LOCATION: Meloland Road Bridge at the Central Drain APN: N/A

Imperial, CA. 92251 PARCEL SIZE: N/A

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: 06-27-2024

INITIAL STUDY: #23-0034

☐ 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	Imperial Irrigation District, CEO.	

REQUESTED ACTION:

See attached.

EEC ORIGINAL PKG

☐ NEGATIVE DECLARATION
☒ MITIGATED NEGATIVE DECLARATION

Initial Study & Environmental Analysis
For:

Imperial County Project Number 6838
Meloland Road Bridge Replacement at Central Drain
Initial Study (IS) # 23-0034

Prepared By:

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

June 2024

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Appendix A, Air Quality/Greenhouse Gas Emissions Data

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SECTION 1
INTRODUCTION

A. PURPOSE

This document is a ☐ policy-level, ☒ project level Initial Study for evaluation of potential environmental impacts resulting from the proposed Meloland Road Bridge Replacement at Central Drain Project (Refer to Exhibits "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 the 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.

C. INTENDED USES OF INITIAL STUDY AND NEGATIVE DECLARATION

This Initial Study and Negative Declaration are informational documents which are intended to inform County of Imperial decision makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed applications. The environmental review process has been established to enable public agencies to evaluate environmental consequences and to examine and implement methods of eliminating or reducing any potentially adverse impacts. While CEQA requires that consideration be given to avoiding environmental damage, the Lead Agency and other responsible public agencies must balance adverse environmental effects against other public objectives, including economic and social goals.

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

D. CONTENTS OF INITIAL STUDY & NEGATIVE DECLARATION

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

SECTION 1

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

SECTION 2

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

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

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

SECTION 3

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

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

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

VI. NEGATIVE DECLARATION – COUNTY OF IMPERIAL

VII. FINDINGS

SECTION 4

VIII. RESPONSE TO COMMENTS (IF ANY)

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

E. SCOPE OF ENVIRONMENTAL ANALYSIS

For evaluation of environmental impacts, each question from the Environmental Checklist Form is summarized and responses are provided according to the analysis undertaken as part of the Initial Study. Impacts and effects will be evaluated and quantified, when appropriate. To each question, there are four possible responses, including:

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

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

3. **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.

G. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE

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

1. Tiered Documents

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

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

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

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

Further, Section 15152(d) of the CEQA Guidelines states:

"Where an EIR has been prepared and certified for a program, plan, policy, or ordinance consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program, plan, policy, or ordinance should limit the EIR or negative declaration on the later project to effects which:

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

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

2. Incorporation By Reference

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

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

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

SECTION 2

II. Environmental Checklist

1. **Project Title**: Initial Study #23-0034 Meloland Road Bridge Replacement at Central Drain; County Project Number 6838
2. **Lead Agency**: Imperial County Planning & Development Services Department (ICPDS)
3. **Contact person and phone number**: Rocio Yee, Planner I (442) 265-1736 ext. 1750
4. **Address**: 801 Main Street, El Centro CA, 92243
5. **E-mail**: rocioyee@co.imperial.ca.us
6. **Project location**: The proposed application, referred to herein as "the project", is located approximately 4 miles west of the City of Holtville, within Imperial County, California. The existing bridge is located approximately 1.9 miles north of Evan Hewes Highway, on Meloland Road, over the Central Drain.
7. **Project sponsor's name and address**: Imperial County Public Works Department, 155 S. 11th Street, El Centro, CA 92243
8. **General Plan designation**: The project site and surrounding areas are designated for agricultural land use by Imperial County (County).
9. **Zoning**: A-2 (General Agriculture)
10. **Description of project**: The project would demolish and replace the existing bridge at Meloland Road over Central Drain with an underground pipe crossing. Meloland Road is a north-south minor collector road serving the surrounding agricultural community and the Holtville area via Evan Hewes Highway. The Central Drain is a critical drain maintained and operated by the Imperial Irrigation District for the entire El Centro urban area, and surrounding agricultural farms, and discharges directly into the Rositas Waste Drain approximately 900 feet downstream, and subsequently into the Alamo River, located 0.25 mile from Meloland Road.
11. **Surrounding land uses and setting**: The project site and surrounding areas are designated for Agricultural land use by the Imperial County General Plan and zoned as A-2, General Agriculture. The project would involve construction of a new pipe crossing and improved approach road, thus complying with Imperial County's Land Use Ordinance as well as remaining consistent with the Imperial County General Plan land use designation.

12. **Other public agencies whose approval is required** (e.g., permits, financing approval, or participation agreement.):

- **California Department of Fish and Wildlife (CDFW)** – 1602 Streambed Alteration Agreement
- **Colorado River Regional Water Quality Control Board (RWQCB)** – Waste Discharge Requirements
- **State Water Resources Control Board (SWRCB)** – National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
- **Imperial County Air Pollution Control District (ICAPCD)** – Dust Control Permit
- **Imperial Irrigation District (IID)** – Construction easement/ right-of-way/ Encroachment Permit

13. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

AB 52 consultation notification letters were sent on May 2, 2024, No response comment letters have been received to date.

***Note**: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code, Section 21080.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code, Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code, Section 21082.3 (c) contains provisions specific to confidentiality.*

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.

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: 6-27-2024

EEC ORIGINAL PKG

PROJECT SUMMARY

A. Project Location:

The project site is located in Imperial County within portions of Sections 19 and 20, of Township 15 S Range 15 E. The existing bridge is located on Meloland Road at the Central Drain, approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the City of Holtville, California. Meloland Road, is a north-south minor collector road which serves both the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road and serves to provide connectivity to the cities of Imperial and north El Centro. Refer to Exhibit A, *Vicinity Map* and Exhibit B, *Location Map*.

B. Project Summary:

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over Central Drain with a pipe crossing. The primary objective of the project is to provide a safe, reliable crossing for the public that meets all current design standards. The purpose of the project is to replace the existing 1940's structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards and ensure drain flow is not impeded. The bridge was closed intermittently to traffic in 2016 due to bridge inspection and remedial work, with a permanent closure being instituted in 2022. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District (IID). This drain serves the agricultural community and is also the main drain that serves the El Centro urban area, which then discharges to the Rositas Waste Drain, and then to the Alamo River, located approximately eight miles east of El Centro.

The project activities include the demolition, removal, and disposal of the existing bridge and replacement with a pipe crossing. Afterwards the project would repave the improved approach roadway along the alignment. IID would work in tandem to dewater the drain channel, remove vegetation, and facilitate drain bypass pumping during pipe crossing construction. Bridge demolition would be conducted by the County under private contract, the road replacement work by County forces, and the pipe crossing work would be conducted by the IID who operate and maintain the Central Drain. The project would occur over four (4) phases for a duration of approximately 3.5 months. This Initial Study addresses the entire project scope.

Phase 1 – Bridge Demolition/Removal

The existing bridge and associated piles would be demolished and removed prior to vegetation removal and construction of the pipe crossing. Demolition activities would be designed to minimize impacts to the drain. The existing bridge wood pile supports would be removed by extraction. If they are unable to be extracted, they would be broken off at a minimum of six-inches inches or more below the elevation of the IID's proposed pipe elevations. Once the piles are removed or broken off, an excavator, with a chain, would lift the pile out of the drain, loaded into a dump truck, and transported to an appropriate disposal facility. The abutment piles, most of which are exposed due to drain bank erosion, would be removed in a similar manner. Equipment required for removal of the existing bridge abutments/piles would be staged on and operated from the banks of the drain and or Meloland Road and not in the drain during flow unless a drain bypass is engaged. Construction activities would take approximately one month. Phase 1 construction equipment includes cranes, excavators, dump and haul trucks, rubber-tired loaders, sweepers and scrubbers, and tractors, loaders, and backhoes.

Phase 2 – IID Dewatering

Due to the potentially high groundwater, IID would dewater at the pipe crossing channel location and discharge back into the drain just downstream of the proposed pipe crossing as per IID standard practices. This is within IID's Central drain right of way. Construction activities for Phase 2 would involve the IID dewatering activity approximately two weeks prior to pipe crossing construction and its maintenance throughout the process (approximately one and a half months). Phase 2 construction equipment includes bore and drill rigs, excavators, forklifts, and pumps. Phases 2 and 3 would be done by IID in parallel.

Phase 3 – IID Bypass and Pipe Crossing

After bridge and pile demolition, removal, disposal and vegetation removal, excavation for the installation of the new pipe and headwalls would occur along with drain bypass (either by gravity flow or pumping) to ensure drain flow can bypass the pipe crossing work during construction. The bypass would be constructed adjacent to the work area within the existing IID drain right-of-way and would be used until the headwalls and pipe crossing work is substantially complete. A dirt or earthen tap may be used in conjunction with the bypass as required during construction. The bypass pipe would be placed at an elevation that would normally handle higher flows, for future emergency needs, but normal drain flow would remain in the two proposed pipes for the crossing. If the drain bypass uses gravity flow pipe instead of pumping, the bypass would remain in place after the pipe crossing work is completed, serving as an emergency overflow measure for Central Drain during future high flow events.

Once the pipe and headwalls are in place, drain bypass no longer used for normal flows, the pipes would be backfilled and compacted to the road subgrade elevation. The proposed pipe crossing design by IID consists of two, 60-inch diameter 120-foot-long plastic pipes to convey Central Drain flows, as well as inlet and outlet concrete headwalls to maintain the pipe integrity. Rip rap would be installed at inlets and outlets for erosion control purposes. The pipe(s) crossing would include special, custom inlet and outlet concrete headwalls to maintain the pipe integrity with rip rap at inlet and outlets for erosion control.

Similar pipe crossings exist approximately 1000 feet upstream and 900 feet downstream of the project site. IID's work would be done in parallel to construction, taking place over the course of approximately one month. The bypass and construction of the pipe crossing would occur for one week, followed by one week of backfill, and one week of cleanup and demobilization. A total of 5,500 cubic yards of soil would be imported from a borrow site located approximately one mile away. Phase 3 construction equipment includes air compressors, cement mixers, industrial saws, cranes, crawler tractors, excavators, graders, dump and haul trucks, pumps, rubber-tired loaders, and tractors, loaders, and backhoes.

Phase 4 – Road Replacement/Paving

After the pipe crossing work is complete, the Meloland Road structural section would be placed, including aggregate base, asphalt concrete and striping to tie into each side of the crossing to match existing paved surfaces, then the road crossing can be opened to traffic. Road drainage would be reviewed and any design to accommodate the road drainage safely to the Central Drain would be addressed. The existing two-lane roadway would occupy the same alignment as the existing roadway along the existing bridge. The approach roads would include two, 12-foot-wide lanes, two, 4-8-foot-wide unpaved shoulders, and a 55-mile-per-hour (mph) design speed. This final phase is expected to take approximately one month. Construction equipment includes graders, dump and haul trucks, pavers and paving equipment, rollers, rubber-tired loaders, surfacing equipment, sweepers and scrubbers, and tractors, loaders, and backhoes.

Traffic Control and Detour

Traffic along Meloland Road has been detoured since 2016, as the bridge is currently closed to vehicles. The construction, when initiated, would maintain the existing road closure and detour in place until the project road crossing reconstruction has been completed, and then the road would be opened. No new detour or road closures are needed.

Drain Bank Access Roads

Existing Central Drain banks/access roads that intersect with Meloland Road within the project area would not be impacted with a pipe crossing. IID access to the drain bank roads would be maintained throughout construction.

Water Consumption

The project would require water for dust control during ground disturbing and earth compaction activities. Water would likely be obtained from a nearby IID canal, through an IID encroachment permit.

Site Preparation
Any site vegetation would be removed during site preparation to clear the channel for the placement of pipe and headwalls. This may be performed after bridge demolition/removal. IID operates and maintains this drain channel as part of their ongoing operation and maintenance needs.

Staging Area
Staging areas would be used to store project materials and equipment throughout construction. Staging areas include existing Meloland Road and IID drain bank areas. Traffic control, barricades and construction sign plans currently exist due to the bridge closure and would remain in place and ensure no public traffic enters this area during construction. All equipment required for removal of the existing bridge abutments/piles would be staged on and operated from the banks of the drain and or Meloland Road and not in the drain during flow unless a drain bypass is engaged.

Right-of-Way
There are power distribution lines along Meloland Road, near the existing bridge. It is possible that the bridge demolition work and/or IID's pipe crossing work may require the existing distribution line be relocated by a temporary shoofly during portions of the construction. At completion, the lines would return to their previous alignment. Additional coordination during the project development stage would determine if temporary relocation is necessary. If required, the shoofly would be part of the project.

No new right-of-way is required as all work would occur within the existing County road and IID drain rights of way. All staging during construction would also occur within existing County road and/or IID drain right of way. An existing telephone cable along the east end of the bridge and telephone box at the northwest corner of the bridge would need to be relocated. This facility is within the County and IID rights of way, under encroachment permits, and would be relocated at the operator's expense. Additionally, Phase 1 and 3 of the project could involve the temporary relocation of existing power distribution lines that are immediately adjacent to the project site, along Meloland Road. If deemed necessary, the construction, operation, and removal of a temporary shoofly (detour) would be incorporated into the project phasing.

Permitting/Approvals
Permits and approvals currently anticipated are provided in Table 1, *Anticipated Permits and Approvals*; however, it is noted that IID routinely performs work in their drain facility as part of their own operation and maintenance needs.

Table 1, Anticipated Permits and Approvals

Agency	Approval	Function
County of Imperial	CEQA compliance	Discretionary approval
Imperial Irrigation District	Construction easement/Right-of-way/Encroachment Permit	Temporary use during construction and permanent use for proposed pipe crossing & road improvements.
Imperial County Air Pollution Control District (ICAPCD)	Dust Control Permit	Reduce dust from construction activities.
California Department of Fish and Wildlife (CDFW)	1602 Streambed Alteration Agreement	For work in Central Drain to replace the Meloland Road Bridge with a pipe crossing.
Regional Water Quality Control Board, Colorado River Basin	Waste Discharge Requirements	For work in Central Drain to replace the Meloland Road Bridge with a pipe crossing.

State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	Reduce erosion of soils and siltation of Central Drain during construction activities.

C. Environmental Setting:

The topography of the project site is relatively flat, with an elevation of approximately 76 feet below Mean Sea Level (MSL). The site is developed as a roadway bridge over the Central Drain surrounded primarily by agricultural lands. The Central Drain is maintained and operated by the IID and discharges into the Rositas Waste Drain approximately 900 feet downstream, and subsequently into the Alamo River, located 0.25 mile from Meloland Road. The nearest sensitive receptor is a residence located approximately 0.3 miles south of the project site located at 2467 Meloland Road. Meloland Road is a north-south minor collector road serving the surrounding agricultural community and the Holtville area via Evan Hewes Highway.

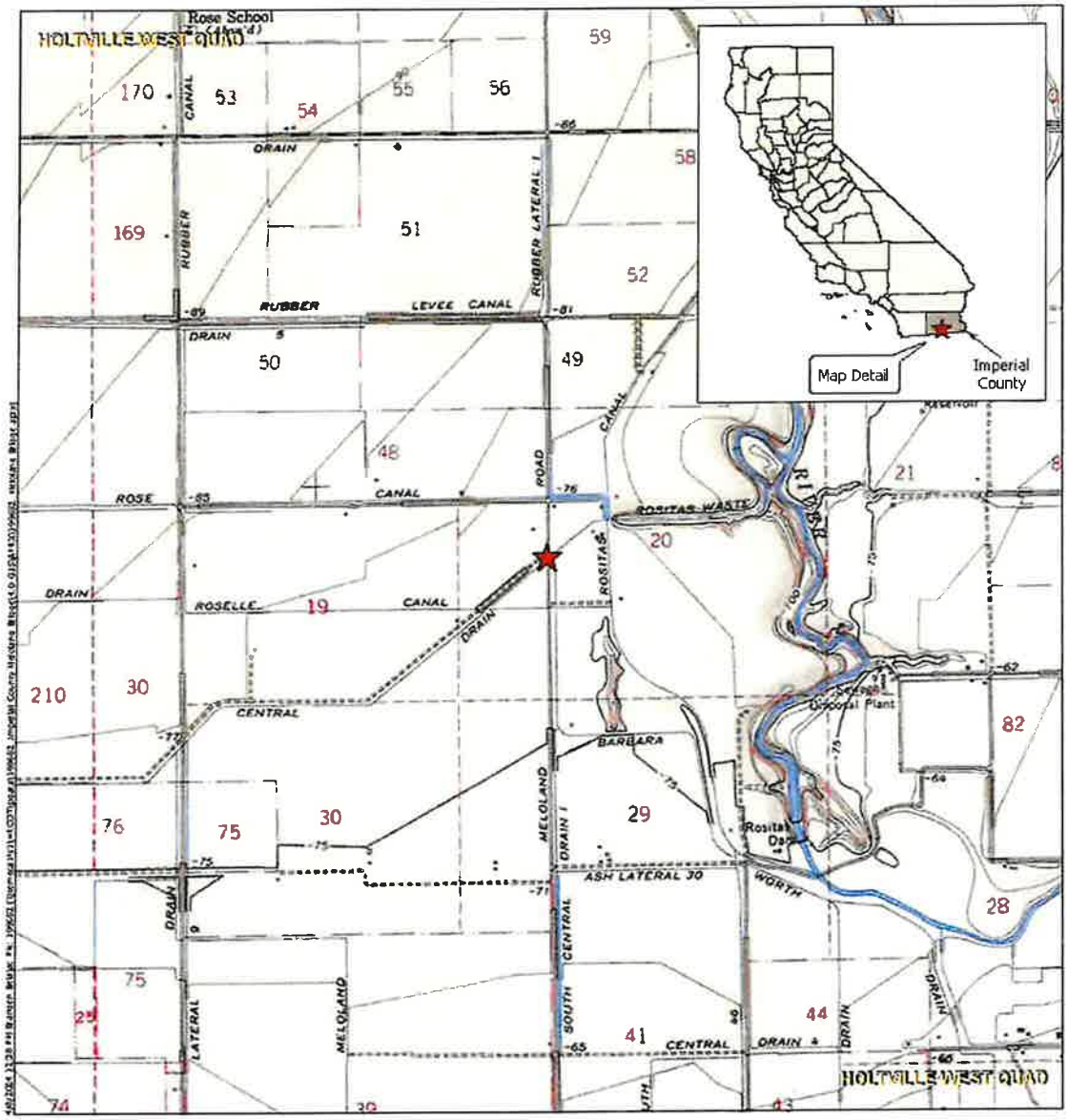
D. Analysis:

The County is the CEQA lead agency having authority to authorize construction of the project. The County would obtain an encroachment permit from the IID for work within their right-of-way. The pipe crossing design and construction would be performed by the IID. The bridge removal and disposal work, along with the road reconstruction work would be performed by the County either with County forces and/or through a public bid process. Funding for the Project would be facilitated through the County's Local Transit Authority (LTA) Measure D fund account, and/or Senate Bill 1 (SB1) through the California Department of Transportation (CalTrans).

E. General Plan Consistency:

The project site and surrounding areas are designated for Agricultural land use by the County's General Plan and zoned as A-2 General Agriculture. The project would involve removal of a deteriorated timber bridge and replacement with a new pipe crossing, which is compliant with Imperial County's Land Use Ordinance.

Exhibit "A"
Vicinity Map



Legend

★ Project Site

Exhibit "B"
Location Map

Legend

Pipe Design

Project Site (3.72 ac)

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)	Less Than Significant with Mitigation Incorporated (LTSMI)	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) According to the Imperial County General Plan, the project site and surrounding areas are designated for Agricultural land use. Imperial County's Code of Ordinances Title 9: *Land Use* describes the purpose of A-2 is to designate areas that are suitable and intended primarily for (limited) agricultural uses and related compatible uses with a 40-acre minimum to maintain agricultural land in the largest farmable parcel configurations[1]. Thus, the predominant land use within the vicinity of the project site is agricultural.

Goal 3 of the Land Use Element in the County's General Plan aims to preserve the unique natural, scenic, and agricultural resources within Imperial County while achieving balanced economic and residential growth. While the County contains several natural scenic resources, there are none within nor adjacent to the project site. The nearest natural scenic resource to the project site is the Salton Sea, which is located approximately 24 miles northeast. The nearest scenic corridor. SR-78 (as designated by the General Plan), is approximately 40 miles northwest of the project site. Neither of these resources are visible from the project site.

The project site is not visible from the nearest General Plan designated major scenic corridor, SR-78, and nearest scenic resource, the Salton Sea. There are no other scenic resources in the vicinity of the project area. The project would not interfere with existing scenic vistas, areas, or corridors, nor does it contain any unique scenic qualities or characteristics. Therefore, the project would not have a significant adverse effect on a scenic vista, and 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 and the surrounding area is devoid of scenic trees, rock outcroppings, or known historic buildings, and is not located along a State Scenic Highway. As mentioned in the above environmental setting, the nearest scenic resource designated by the County General Plan is approximately 24 miles away from the project site, out of the viewshed. As such, 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 site is relatively flat and the proposed bridge removal and replacement with an underground pipe crossing would occur within the existing roadway. The new pipe crossing and construction related activities would be visible from public roadways and the surrounding agricultural lands, as well as a residence located approximately 0.3 miles south of the project site. The project would replace an existing bridge that has deteriorated to the point of permanent closure in 2022, and ultimately improve public views along public roadways once the new pipe crossing is constructed. The project would not adversely impact existing views, effects during construction would be minimal, and impacts 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) The project site would not directly add any new light sources, and construction activities are not anticipated to occur at night. While there is a residence adjacent to the project site (approximately 0.3 miles to the south), any such glare resulting from the bridge replacement with a new pipe crossing, such as an increase of vehicular lights, is being restored rather than introduced, as the deteriorated bridge was fully operational until 2016. Given the nature of the project, there would be no direct new light sources added. Therefore, potential lighting and glare impacts would be less than significant.

[1] County of Imperial. (Adopted November 1998, Amended November 2023). *Land Use Ordinance*, Ordinance No. 1565, § 3.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

II. *AGRICULTURE AND FOREST RESOURCES*

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

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

a) According to the California Important Farmland Finder[2], the project is not located on farmland. As such, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impacts would occur.

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

b) The County of Imperial has no current Williamson Act contracts, according to the California Williamson Act Enrollment Finder, Imperial County is withdrawn from the 2022 Williamson Act[3]. Additionally, the proposed project site is located within the right of way of an existing County road bridge and IID maintained agricultural drain without changing either alignment. Therefore, the project would not conflict with an existing zoning for agricultural use, and 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 is not located on or within the vicinity of land zoned as forest land. The project site is surrounded by land zoned as A-2 (General Agriculture). Accordingly, the project would not conflict with existing zoning, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production. As such, no impact would occur.

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

d) As indicated above in II(c), the project would not be located on or within the vicinity of forest land. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impacts 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) As mentioned above in II(a) and II(c), the project is not located on or within the vicinity of farmland or forest land. As such, the project would not result in the conversion of Farmland to a non-agricultural use or the conversion of forest land to a non-forest use. Therefore, no impact would occur.

[2] Department of Conservation, California Important Farmland Finder, https://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx, Accessed February 13, 2024.
[3] Department of Conservation, California Williamson Act Enrollment Finder, https://maps.conservation.ca.gov/dlrp/WilliamsonAct/, Accessed February 13, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

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 is located within the Salton Sea Air Basin (SSAB), which is governed by the Imperial County Air Pollution Control District (ICAPCD). In order to reduce emissions, the ICAPCD adopted the *Imperial County 2017 State Implementation Plan For The 2008 8-Hour Ozone Standard* (Ozone Plan) and the *Imperial County 2018 Redesignation Request and Maintenance Plan for Particulate Matter less than 10 Microns in Diameter* (PM_{10} Plan), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and Federal air quality standards. The Ozone Plan and PM_{10} Plan incorporate the latest scientific and technical information and planning assumptions, including the latest \growth assumptions from Southern California Association of Governments (SCAG) *Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (2020-2045 RTP/SCS), and updated emission inventory methodologies for various source categories. According to ICAPCD's *California Environmental Quality Act Air Quality Handbook* (dated December 2017), project consistency with the Ozone Plan and PM_{10} Plan can be determined by comparing the actual population growth in the County of Imperial (County) with the projected growth rates used in the Ozone Plan and PM_{10} Plan. The projected growth rate in population is used as an indicator of future emissions from population-related emission categories in the Ozone Plan and PM_{10} Plan. These emission estimates are used, in part, to project the date by which the County will attain the federal ozone and PM_{10} standards.

Given the nature of the project, it would not result in direct or indirect population growth and would not affect Countywide plans for population growth at the project site. Additionally, the project would not require regular maintenance activities, and therefore would not increase employment. The project is consistent with the types, intensity, and patterns of land use envisioned for the site in these local plans. As such, the project would be consistent with SCAG's 2020-2045 RTP/SCS. Additionally, as the ICAPCD has incorporated these same projections into the Ozone Plan and PM_{10} Plan, it can be concluded that the project would be consistent with the air quality plans and impacts 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 standard? ☐ ☐ ☒ ☐

b) *Construction Impacts*

Construction Emissions

Construction activities would occur over a period of approximately five months. Construction activities would involve bridge demolition/removal, dewatering, pipeline bypass and crossing, and bridge replacement and paving. The California Emissions Estimator Model (CalEEMod) version 2022.1 was utilized to calculate the project's construction air pollutants emissions; refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data*, for CalEEMod outputs and results. Exhaust emission factors for typical diesel-powered heavy equipment are based on the program defaults of CalEEMod. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. Table 2, *Project-Generated Construction Emissions* presents the anticipated daily short-term construction emissions associated with the project.

Table 2, Project-Generated Construction Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1	1.39	13.60	14.50	0.04	62.50	6.82
Year 2	2.48	20.50	26.90	0.04	148.00	15.60
Maximum Daily Emissions	**2.48**	**20.50**	**26.90**	**0.04**	**148.00**	**15.60**
ICAPCD Thresholds[3]	*75*	*100*	*550*	*NA*	*150*	*NA*
Is Threshold Exceeded?	***No***	***No***	***No***	***NA***	***No***	***NA***

Notes: ROG = reactive organic gas; NO_x = nitrous oxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter

1. Emissions were calculated using CalEEMod, version 2022.1. Maximum emissions during summer or winter are presented here to represent the worst-case scenario.
2. Modeling assumptions include compliance with ICAPCD Regulation VIII which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water or stabilize exposed surfaces; cover stockpiles with tarps; and water or stabilize unpaved roads.

3. ICAPCD does not require quantitative construction emissions analysis for projects that do not exceed the operational emissions thresholds (Tier 1 projects). However, construction emissions were quantified and compared to ICAPCD construction emissions thresholds for informational purposes. ICAPCD does not establish thresholds for SO_2 or $PM_{2.5}$.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data* for detailed model input/output data.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. $PM_{2.5}$ is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$ components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

The County would implement all required dust control techniques per ICAPCD Regulation VIII, which requires that excessive fugitive dust emissions be controlled by regular watering or other dust prevention measures to reduce PM_{10} concentrations. It should be noted that these reductions were applied in CalEEMod. As depicted in Table 2, total fugitive dust (PM_{10}) emissions during construction would not exceed applicable ICAPCD threshold. Thus, impacts in this regard would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the site, emissions produced on-site as equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 2, criteria pollutant emissions, including those associated with the use of construction equipment and worker vehicle exhaust, would not exceed the applicable ICAPCD thresholds. Therefore, impacts in this regard would be less than significant.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, serpentinite and ultramafic rocks are not known to occur within the project area.[4] Thus, no impact would occur in this regard.

Operational Impacts

The project proposes to demolish and replace the existing structurally deficient wooden bridge from the 1940s with a new pipe crossing at Central Drain, in addition to roadway reconstruction along the existing alignment at Meloland Road. The project would not require regular maintenance during operation, increase the roadway capacity, or generate additional traffic. Traffic along Meloland Road has been detoured since 2016, as the bridge is currently closed to public traffic. Therefore, the project would reduce average trip lengths in the area due to a shorter route, which would reduce emissions generated from mobile sources. In addition, due to the nature of the project, no area or energy sources emissions would be generated. As such, as the project would not include new mobile sources of emissions or permanent stationary sources, the project would not have the potential to generate criteria air pollutants emissions from project operations. Impacts would be less than significant in this regard.

[4] California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

As the project would not exceed ICAPCD thresholds for construction (refer to Table 2) and would not generate operational air emissions, the project would result in less than significant air quality health impacts.

Conclusion

As summarized above, the project's short-term construction emissions would be below the ICAPCD thresholds would result in a less than significant impact. Furthermore, the project would not result in significant long-term air quality impacts. Thus, the project's construction and operational emissions would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the Salton Sea Air Basin. Impacts would be less than significant in this regard.

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

c) Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptor to the project site is a residence located approximately 0.3 miles to the south of the project site located at 2467 Meloland Road.

Localized Air Quality Health Impacts

Construction

The project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit Diesel Particulate Matter (DPM). In 1998, the CARB identified diesel exhaust as a Toxic Air Contaminant (TAC). Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed.

The project would replace the bridge at Meloland Road over an intermittent, phased period of approximately five months. As previously discussed, the closest sensitive receptor is a single-family residential property located approximately 0.3 miles to the south. However, health impacts on sensitive receptors associated with exposure to DPM from project construction are anticipated to be less than significant because construction activities are expected to occur well below the 30-year exposure period used in health risk assessments and would comply with required regulations. Additionally, emissions would be short-term and intermittent in nature, and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard. Also, due to the distance between the project site and the nearest single-family residential building (0.3 miles), emissions such as DPM and other TACs would be mostly dissipated at the receptors. Therefore, construction of the project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and the impact would be less than significant.

Operation

The project would replace the bridge at Meloland Road with an underground pipe crossing. Due to the lack of operational emissions as discussed above, the project would not result in operation activities with potential health risks. Therefore, operation of the project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors and the impact would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The Salton Sea Air Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. Nationwide estimated anthropogenic CO emissions have decreased 68 percent between 1990 and 2014. In 2014, mobile sources accounted for 82 percent of the nation's total anthropogenic CO emissions.[5] Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

[5] U.S. Environmental Protection Agency, *Carbon Monoxide Emissions*, https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=10, accessed February 21, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

As previously discussed, the project does not directly generate additional vehicle trips, a predominant source of CO emissions. As such, it is not anticipated that the project would result in a CO hotspot. Impacts would be less than significant in this regard.

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

d) According to the ICAPCD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include wastewater treatment plants, sanitary landfills, composting stations, feedlots, asphalt plants, painting and coating operations, and rendering plants. The project does not propose any uses identified by the ICAPCD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. However, construction-related odors would be short-term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by requiring equipment to be shut off when not in use or limiting idling time to no more than five minutes. Compliance with these existing regulations would further reduce the detectable odors from heavy-duty equipment exhaust. Any odor impacts to existing adjacent land uses would be short-term and negligible. As such, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant in this regard.

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) A field survey and habitat assessment done by Michael Baker International on March 12, 2024 (Appendix C, Biological Resources Memorandum), revealed that no federally or State threatened, endangered, candidate, or special-status species, or sensitive natural habitats were observed at the project site. However, suitable habitat for several special status species was present, including the Yuma Ridgway's Rail (*Rallus obsoletus yumanensis*), a State and federally listed as endangered species. Suitable habitat for the burrowing owl (*Athene cunicularia*) was not observed, however potential suitable foraging was present. Compliance with Migratory Bird Treaty Act California Fish and Game Code (CFGC), which requires the project must avoid impacts to birds and their active nests during the breeding season (February 1 through September 15). Implementation of MM BIO-1 would ensure that impacts to special status species is less than significant.

MM BIO-1: Nesting Bird Survey

If bridge demolition and construction occurs during the bird breeding season (February 1 through September 15), a qualified biologist shall be retained to conduct a preconstruction nesting bird survey. The survey must occur three days prior to the start of bridge demolition. If an active nest is found, bridge demolition must not occur within 25 feet of the nest until nesting activity has ceased. Any time that construction activities cease for more than seven days, a new nesting bird survey must be conducted.

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) A jurisdictional delineation/field survey of the project stie was conducted on March 26, 2024 (Appendix B, Aquatic Resources Delineation Report). No riparian habitat was observed during the field survey. Additionally, no sensitive communities were observed during the biological field survey. Accordingly, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impacts would occur.

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) Two soil pits were dug within the Central Drain as part of the jurisdictional delineation/field survey to determine if wetland conditions were present. Wetland soils were not observed, indicating that no wetlands are present within the project site (Appendix B, Aquatic Resources Delineation Report). As such, the proposed project would not have a substantial adverse effect on state or federally protected wetlands. No impacts would occur.

		Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
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 most common wildlife detected in the project area were birds. Other observed wildlife included the desert cottontail and common muskrat. The existing bridge over Central Drain has the potential to serve as a movement corridor for small and common wildlife species, such as rodents, reptiles, and small mammals. However, any potential impacts to wildlife crossing during the removal of the existing bridge and construction of the new bridge would be temporary. The potential corridor would be unavailable during the proposed project construction only. Therefore, the project would not interfere substantially with the movement of wildlife species. Impacts would be less than significant.

Birds were observed nesting on the beams of the existing bridge during the biological field survey, and there is a potential for other birds to be nesting in vegetated areas throughout the project area. Additionally, while there is no suitable habitat for the special-status bat species; there is a potential for common bats, such as Mexican free-tailed bat (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*), and little brown bat (*Myotis lucifugus*), to occur in the project site. These species could potentially roost within the Meloland Road bridge joints and hinges. Implementation of MM BIO-1 and MM BIO-2 would ensure that impacts to native wildlife nursery sites are less than significant.

MM BIO-2: Bat Survey

The County shall conduct a bat survey between 30-60-days prior to construction to determine if bats are present at the bridge. If a bat colony is present, humane bat exclusion or eviction (i.e., one-way doors) would be incorporated into the bridge for at least 10-days prior to demolition. The exclusion devices shall be checked daily until bridge demolition is initiated to ensure bats are not able to re-enter the bridge. No exclusion of bats can occur during the winter roosting season (November–February). If bats are not found during the appropriate survey period, or bridge demolition occurs outside of the maternity season (March–September) and the winter season, no outflight or preconstruction clearance survey would be needed. This measure may be superseded by permit conditions in the CDFW 1600 Lake and Streambed Alteration Agreement.

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

e) No local policies or ordinance protecting biological resources apply to the proposed project stie. No impacts 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 proposed project occurs within the boundaries of the IID Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP). However, the County is not a signatory of this plan. The project may conflict with the NCCP/HCP. Coordination with IID would be required to ensure that impacts regarding conflict with the NCCP/HCP would be less than significant.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

V. *CULTURAL RESOURCES*

Would the project:

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

a) A cultural resources report was prepared by Michael Baker International (Michael Baker) in April 2024 using information gathered from a pedestrian survey of the project site and a records search conducted at the California Historical Resources Information System (CHRIS) South Coastal Information Center (SCIC) at San Diego State University. The search identified any known cultural resources and previously performed cultural resource studies within a ½ mile radius of the Area of Potential Impacts (API). The results of this records search, literature, and historical map review are included as *Appendix D, Cultural Resources Identification Memorandum* for the Meloland Road at Central Drain Bridge Replacement Project, Imperial County, California.

Michael Baker reviewed a SCIC records search, literature, and historical map inventory, Native American Heritage Commission (NAHC) Sacred Lands File search, field survey, California Register of Historical Resources evaluation, and buried archaeological site sensitivity analysis to determine if the project area contains historical resources, as defined in California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a), that may be impacted by the project.

The *Cultural Resources Identification Memorandum* concluded that the project area has a low potential for significant unknown historical resources, as it has sustained primarily agricultural land uses since the 19th century. Additionally, a review of topographic maps and aerial photographs indicated that no unknown significant historic period sites or built features are anticipated within the project area. While one historic resource, Redwood Canal, was identified within a one-half mile radius of the project site, it is not a built feature. Furthermore, the *Cultural Resources Identification Memorandum* specifies that there were no historic built resources located within or near the project site. Thus, impacts to potential historical resources resulting from implementation of the project would be less than significant.

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

b) According to the SCIC records search and field survey, as detailed in the *Cultural Resources Identification Memorandum*, no previously recorded prehistoric sites or isolated prehistoric artifacts were identified within the project area or the half-mile search radius. Furthermore, the project area consists of land previously disturbed by the original development of the canal, bridge, and road, which suggests potential for encountering unknown archaeological sites within the project area is low to negligible. However, despite low archaeological sensitivity within the project area, there is potential to identify resources during earth-moving activities. Impacts to undiscovered archaeological resources would be reduced to less than significant levels through implementation of Mitigation Measure (MM) CUL-1.

MM CUL-1: Inadvertent Discovery

In the event that any subsurface cultural resources are encountered during earth-moving activities, it is all work shall be halted in the vicinity of the discovery until a Qualified Archaeologist can evaluate the findings and make recommendations. The archaeologist shall evaluate the find in accordance with federal, state, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and Public Resources Code Section 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of human remains in a location other than a dedicated cemetery.

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

c) As detailed in *Cultural Resources Identification Memorandum*, no archaeological sites are known or expected to occur within the project area, nor within a half-mile radius. There are no formal cemeteries located within nor adjacent to the project site. However, as mentioned above, earthwork activities during the construction component of the project have the potential to uncover previously unknown resources, including human remains. Impacts to such resources during construction would be reduced to less than significant levels with the implementation of MM CUL-1.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

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) Given the nature of the project, the creation of a new energy source is not applicable. The replacement of the existing bridge with an underground pipe crossing does not involve an electrical component during operation. Construction activities would result in short-term energy consumption from the use of petroleum fuels by construction equipment, and from on-road vehicles used by construction workers to travel to and from the site during construction and to deliver construction materials. Construction-related energy consumption would be temporary and not a permanent new source of energy demand, and demand for fuel would have no noticeable effect on peak or baseline demands for energy. Therefore, the project would not result in an inefficient, wasteful, and unnecessary consumption of energy, and impacts would be less than significant.

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

b) The project would comply with California Assembly Bill 32 (AB 32) which intends to reduce the effects of greenhouse gas (GHG) emissions and promote energy efficiency by implementing clean energy policies targeted at: increasing energy efficiency in homes, buildings, and vehicles; cleaner transportation fuels; increasing reliance on renewable energy; and reducing carbon pollution. Additionally, the project would be consistent with State regulations regarding GHG emissions (refer to Section VIII: Greenhouse Gas Emission for detailed analysis and regulatory framework). Given the nature of the project, no energy would be consumed during operation of the pipe crossing, and energy consumption during construction activities would be temporary in nature and in compliance with applicable regulations for energy efficiency. Thus, insignificant against State or local plans for renewable energy and energy efficiency. No impact would occur.

VII. ***GEOLOGY AND SOILS*** ***Would the project***

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

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

a.1) Per the California Earthquake Hazards Zone Application, the project site is not within an Earthquake Fault Zone. However, the Imperial Fault is located approximately 1 mile to the west of the project site, and the Rico Fault is located approximately 3 miles to the southeast[6]. The project would be designed using seismic recommendations in accordance with the Alquist-Priolo Special Study Zone Act design standards and engineering practices. The Alquist-Priolo Special Study Zone Act is enforced by the County to ensure that homes, offices, hospitals, public buildings, and other structures for human occupancy which are built on or near active faults, or if built within special study areas, are designed and constructed in compliance with the County of Imperial Codified Ordinance. The proposed replacement of the existing bridge with an underground pipe crossing would be designed to satisfy current seismic standards. As such, impacts regarding the rupture of a known earthquake fault would be less than significant.

2) Strong seismic ground shaking? ☐ ☐ ☒ ☐

a.2) As mentioned above, the project site is located 1 mile east of the Imperial Fault, and approximately 3 miles northwest of the Rico Fault. Strong seismic ground shaking is a possibility due to the proximity to active faults. However, incorporation of design standards per the Alquist-Priolo Special Study Zone Act would ensure that impacts due to strong seismic ground shaking would remain less than significant.

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

a.3) As mentioned below in Section X, Hydrology and Water Quality, the site is not within a tsunami zone and there are no water bodies in the vicinity of the project site susceptible to seiche. Liquefaction is a concern in the County, according to the General Plan. The proposed project would comply with the current County Standards. Compliance with these design standards would ensure that improvements are properly constructed to avoid impacts related to seismic-related ground failure. As such, impacts regarding seismic-related ground failure would be less than significant.

[6] Department of Conservation, California Earthquake Hazards Zone Application, https://www.conservation.ca.gov/cgs/geohazards/eq-zapp. Accessed February 13, 2024.

		Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
4)	Landslides?	☐	☐	☐	☒

a.4) The project site is located in a flat area with no high or steep slopes. Per the Imperial County General Plan Landslide Activity Map, Figure 2, Seismic and Public Safety Element, the project site is not located within a landslide activity area; therefore, no impacts are anticipated.

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

b) According to the General Plan, the potential for natural erosion is low in the project area due to flat topography. However, loss of topsoil and erosion could result from construction activities. Implementation of best management practices (BMPs) including limiting the amount of disturbed soil, preventing runoff, and ensuring compliance with the Stormwater Pollution Prevention Plan (SWPPP) would reduce the potential for erosion. Therefore, impacts related to substantial erosion or the loss of topsoil 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) The project site and vicinity are relatively flat, and therefore not susceptible to landslides. Furthermore, the proposed roadway approaches and underground pipe crossing would be designed to meet current California seismic structure codes. Compliance with these design standards would ensure that improvements are properly constructed to avoid impacts related to seismic-related ground failure and impacts would be less than significant.

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

d) The proposed project is located on Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes. The clay content of this soil type can result in a high shrink-swell potential which can cause damage to roads unless special designs are used. The road and underground pipe crossing would be designed consistent with seismic recommendations in accordance with current County and State standards and design criteria as appropriate, to ensure that impacts associated with expansive soils are less than significant.

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 wastewater?	☐	☐	☐	☒

e) The project does not propose the construction of a facility that would require a wastewater disposal system. Therefore, there would be no impact in regards to soils incapable of supporting septic tanks or alternative waste water disposal systems.

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

f) According to the *Cultural Resources Identification Memorandum* (Appendix D) there are no cultural resources documented within the project area. Additionally, a review of topographic maps and aerial photographs indicated that no significant historic period archaeological sites, built features, or unique geologic features are anticipated within the project area. Construction for the replacement of the bridge would take place in an area previously disturbed by the original development of the canal, bridge, and road. This suggests that potential for encountering unknown significant prehistoric archaeological sites within the project area is low to negligible. Accordingly, implementation of the proposed project would not directly or indirectly destroy a unique paleo resource or site, or a unique geologic feature. No impact would occur.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

VIII. GREENHOUSE GAS EMISSIONS

Would the project

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

a) The project's anticipated GHG emissions are identified in Table 3, Estimated Greenhouse Gas Emissions. The most recent version of the California Emissions Estimator Model (CalEEMod), version 2022.1 was used to calculate project-related GHG emissions which include direct emissions from construction activities. The project would not require regular maintenance during operation, increase the roadway capacity, or generate additional traffic. Traffic along Meloland Road has been detoured since 2016, as the bridge is currently closed to public traffic. The project would reduce average trip length in the area due to a shorter route, which would reduce emissions generated from mobile sources. In addition, due to the nature of the project, no stationary sources emissions would be generated. The project would not include new mobile sources of emissions or permanent stationary sources and would not have the potential to generate GHG emissions from project operations.

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

b) Project-Related Sources of Greenhouse Gases

As mentioned above under VII a), the project's anticipated GHG emissions are identified in Table 3, *Estimated Greenhouse Gas Emissions.* The most recent version of the California Emissions Estimator Model (CalEEMod), version 2022.1 was used to calculate project-related GHG emissions which include direct emissions from construction activities. The project would not require regular maintenance during operation, increase the roadway capacity, or generate additional traffic. Traffic along Meloland Road has been detoured since 2016, as the bridge is currently closed to public traffic. The project would reduce average trip length in the area due to a shorter route, which would reduce emissions generated from mobile sources. In addition, due to the nature of the project, no stationary sources emissions would be generated. The project would not include new mobile sources of emissions or permanent stationary sources and would not have the potential to generate GHG emissions from project operations.

Table 3, Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4	N_2O	Refrigerants	CO_2e
	Metric Tons/year[1]				
Construction Emissions					
Year 1	50.30	<0.01	<0.01	0.02	51.4
Year 2	95.90	<0.01	<0.01	0.02	96.4
Total Construction Emissions	*146.20*	*<0.01*	*<0.01*	*0.04*	*147.8*
Construction (amortized over 30 years)[2]	**4.87**	**<0.01**	**<0.01**	**<0.01**	**4.93**
Total Project-Related Emissions[3]	4.93 $MTCO_2e$/year				

Notes:
1. Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
2. The amount of GHG emissions from project construction would total 4.93 $MTCO_2e$ per year when amortized over 30 years, or 147.8 $MTCO_2e$ total.
3. Totals may be slightly off due to rounding.

Refer to Appendix A, *Air Quality/Greenhouse Gas Emissions Data* for assumptions used in this analysis.

Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years)[7]. As shown in Table 3, the project would result in 4.93 $MTCO_2e$ per year construction emissions when amortized over 30 years (or a total of 147.8 $MTCO_2e$ in 30 years). As discussed above, the project would not generate emissions during operations. As such, the amount of project related GHG emissions from direct and indirect sources combined would total approximately 4.93 $MTCO_2e$ per year.

Consistency with Applicable GHG Plans, Policies, or Regulations

The County has not adopted a qualifying Climate Action Plan for assessing impacts related to GHG emissions. Nonetheless, the ICTC adopted the Regional CAP. It should be acknowledged that the purpose of the Regional CAP is to address the impacts of climate change and reduce GHG emissions in the Imperial Valley region. The Regional CAP is consistent with and complementary to statewide legislation and regulatory mandates, and establishes local strategies, measures, and actions aimed at reducing GHG

[7] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008). Since the Imperial County Air Pollution Control District does not provide similar guidance the project lifetime was assumed to be 30-years.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

emissions. However, the Regional CAP does not meet all the criteria identified in California Environmental Quality Act (CEQA) Guidelines Section 15183.5 and therefore is not eligible for streamlining GHG emissions analyses for subsequent projects.

CARB's 2022 Scoping Plan describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030. As a small-scale roadway reconstruction and new pipe installment project with minimal construction GHG emissions, the project is not anticipated to conflict with or obstruct the Regional CAP or a State plan for GHG emissions reductions. Specifically, as shown in Table 3, project-related GHG emissions would result in a total of approximately 4.93 $MTCO_2e$ per year. Furthermore, the proposed project would be consistent with the General Plan's Conservation and Open Space Element. The project is required to comply with the General Plan Conservation and Open Space Element Objective 7.6, which require the project to explore and assess strategies to reduce greenhouse gas emissions in the County. Compared to other development projects, the project would generate a nominal amount of GHG emissions and would not have the potential to conflict with the Regional CAP, 2022 Scoping Plan, or any other applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. Impacts would be less than significant in this regard.

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) During the construction phase, the project would require the transport and use of chemicals and materials associated with a pipe crossing. Their use would be temporary and limited by the quantity, duration, and location of construction activities. Additionally, the use, transportation, and disposal of such materials would comply with State requirements and manufacturers recommendations to avoid imposing a significant hazard to the public or the environment. Furthermore, potential hazards to workers would be minimal pursuant to Cal OSHA standards, requiring that a Worker Health and Safety Plan (WHSP) be prepared and implemented prior to construction. The WHSP would identify the nature and extent of contaminants that may be encountered during construction, appropriate health and environmental protection measures, associated equipment, and emergency response procedures. Therefore, no additional hazards would be created.

The operation of the project would not involve the use of any hazardous materials. While the bridge replacement has the potential to increase routine transport of hazardous materials by improving the condition of existing transportation assets, transporters are trained to avoid hazards to the public and the environment, regardless of project implementation. Thus, impacts would be less than significant.

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

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 Central Drain. Spill response and control would be addressed in the project-specific Storm Water Pollution Prevention Plan (SWPPP), as required by the State Water Resources Control Board (SWRCB)'s Construction General Permit (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.

The new pipe crossing would be constructed in the Central Drain, an agricultural drain which services the El Centro urban area and eventually discharges into the Alamo River. Water in the Alamo River primarily consists of agricultural runoff, and the entire Salton Sea watershed is classified as Impaired on the Environmental Protection Agency (EPA)'s 303d list[8] for exceeding maximum allowable pollutant levels for numerous pollutants, including but not limited to ammonia, metals, Polychlorinated biphenyls (PCBs) and Dichlorodiphenyltrichloroethane (DDT). By default, the soil (and resulting dust from earthwork) surrounding the watershed, including the project site, could contain toxic sediment loads. However, any excavation in channel will include BMPs for soil stabilization and dust control measures by watering will also be implemented.

Therefore, potential impacts resulting from the release of hazardous materials into the environment would be less than significant with normal construction BMPs for soil stabilization and dust control measures incorporated.

c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter	☐	☐	☐	☒

[8] California State Water Resources Control Board, Final California 2018 Integrated Report (303(d) List/305(b) Report), https://www.waterboards.ca.gov/water_issues/programs/tmdl/2018state_ir_reports_final/apx_c_state_factsheets/01524.shtml, accessed April 1, 2024.

		Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
	mile of an existing or proposed school?				
	c) The nearest school to the project site is the University of California: Desert Research and Extension Center, located about 2 miles south of the project site. Since this distance is over one-quarter mile, and the project site is not anticipated to emit hazardous emissions or handle acutely hazardous materials, there would be no impact.				
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?	☐	☐	☐	☒
	d) According to the Department of Toxic Substances Control (DTSC) Cortese List of Hazardous Waste and Substance Cleanup Sites[9], the nearest active site to the project area is located at 287 West Aten Road in El Centro, approximately 9 miles west. Since the project site itself is not located on, nor adjacent to, a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, implementation of the project would not result in any significant hazards to the public or environment as a result, and 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 nearest airport to the project site is the Imperial County Airport, located about 7.3 miles west of the project site. Since this distance exceeds two miles, there would be no public safety or noise hazards imposed by implementation of the project. Additionally, the project site is not within the vicinity of a private airstrip, or airport land use plan. Therefore, no impacts would occur.				
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
	f) The project site has been completely closed to traffic since 2022. The construction process would not introduce any new physical barriers or reduce the existing number of available traffic lanes, and existing emergency access for the adjacent residence and surrounding community would not be impeded. Additionally, the project would conform to applicable County and America Association of State Highway and Transportation Officials (AASHTO) standards for design. Since implementation of the project would improve all existing emergency access and alleviate current traffic detours, there would be no impairment to existing emergency response or evacuation plans, and no impact would occur.				
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐
	g) According to current California Department of Forestry and Fire Protection (CAL FIRE) Fire Resource and Assessment Program (FRAP) Maps for Imperial County, the project site is located within a Local Responsibility Area (LRA) [10], and not within the vicinity of any High or Very High LRA-Fire Hazard Severity Zones[11]. Additionally, there are no wildlands within nor adjacent to the project site, and implementation of the project would not expose people or structures to the risk of loss, injury, or death because of wildland fires beyond the negligible risk associated with the project's existence outside of a Fire Hazard Severity Zone. Thus, impacts would be less than significant.				

[9] Department of Toxic Substances Control, DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List), https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, Accessed March 20, 2024.
[10] California Department of Forestry and Fire Protection, *State Responsibility Area Fire Hazard Severity Zones – Imperial County*, scale 1: 90,000, November 21, 2022.
[11] California Department of Forestry and Fire Protection, *Draft Fire Hazard Severity Zones in LRA – Imperial County*, scale 1:150,000, September 19, 2007.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

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) The project would be in compliance with the established federal, State, and local water quality standards. These standards would apply to all aspects of construction including storm water and water discharge from the proposed project site during construction. A Water Discharge Requirements permit and National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) from the Regional Water Quality Control Board (RWQCB) and the State Water Resources Control Board (SWRCB) respectively, with BMP's may be required for the project. Compliance with the provisions of these permits would ensure that the project does not violate any water quality standards or waste discharge requirements. Impacts would be less than significant.

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

b) The project would require water for dust control during ground disturbing and earth compaction activities. Water would likely be obtained from a nearby IID canal, through an IID encroachment permit. As such, the project does not propose the use of groundwater that would result in a substantial decrease in groundwater supplies. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

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

c.i) The project does not propose any changes that that would alter the course of the Central Drain. The potential for natural erosion is low as the site is relatively flat. However, construction activities have the potential to increase erosion due to the use of heavy machinery and grading activities. Compliance with the Water Discharge Requirements permit and General Construction Permit would ensure that erosion due to the alteration of an existing drainage pattern would not occur and impacts would be less than significant.

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

c.ii) As the project is a bridge removal and replacement with an underground pipe crossing project, the potential for surface runoff would be comparable to present conditions at the site. Accordingly, the project would not substantially increase the rate or amount of surface runoff, and impacts will 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; ☐ ☐ ☒ ☐

c.iii) Refer to c.ii above. The project would not result in an increase in runoff that would exceed the capacity of existing or planned stormwater drainage systems. Additionally, the project requires permits governing stormwater pollution. Compliance with the Water Discharge Requirements and General Construction Permit would further reduce impacts to less than significant.

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

c.iv) According to the FEMA's National Flood Hazard Layer (NFHL) Viewer, the project site is not within a flood risk area[12]. As such, implementation of the proposed project would not impede or redirect flood flows. Impacts would be less than significant.

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

d) The project site is not within a flood risk or tsunami hazard zone[13]. Additionally, there are no bodies of water susceptible to seiche within the vicinity of the project site. Accordingly, no impacts regarding the release of pollutants due flood, tsunami, or seiche would occur.

[12] FEMA's National Flood Hazard Layer (NFHL) Viewer, https://www.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed March 25, 2024.
[13] California Department of Conservation, *California Tsunami Maps*, https://www.conservation.ca.gov/cgs/tsunami/maps. Accessed March 25, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

e) Compliance with the NDPES and General Construction Permit would ensure the project would not conflict with or obstruct implementation of a water quality control or sustainable groundwater management plan. A less than significant impact would occur.

XI. LAND USE AND PLANNING Would the project:

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

a) The project is a bridge removal with construction of a new underground pipe crossing project that would be constructed in the same alignment of the existing bridge. The proposed use, design, and scale would be consistent with the existing land use and development in the surrounding area. As the existing bridge has been closed for over a year due to structural deficiencies, operation of a new and improved roadway with pipe crossing as a result of the project would improve access to adjacent properties and the surrounding community. Buildout of the project would reduce detours along Meloland Road; thereby connecting the community. The project does not include any physical barriers or features that would divide an established community, and no impacts would occur.

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

b) The project site is surrounded by land designated as Agriculture and zoned A-2 (General Agriculture). The project would not alter the existing use of the site. As such, the project would be consistent with applicable land use plans, policies, and regulations, including those outlined in the County General Plan and County Municipal Code. As discussed in Section IV. *Biological Resources*, the project site is not located in an area designated as a sensitive habitat, or a conservation area. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation. No impacts would occur.

XII. *MINERAL RESOURCES Would the project:*

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

a) There are no locally important mineral resources underlying the project site (County General Plan, Conservation and Open Space Element, 2016). The project would not contain elements that would remove, damage or otherwise result in the loss of a known mineral resource. Thus, the project would not result in the loss of availability of a known mineral resource, and no impact would occur.

b) 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?	☐	☐	☐	☒

b) There are no mineral recovery sites within nor adjacent to the project site (County General Plan, Conservation and Open Space Element 2016). Thus, the project would not result in the loss of a locally important mineral resource recovery site.

XIII. *NOISE Would the project result in:*

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

a) Construction Noise

The project would be anticipated to generate short-term noise associated with construction activities. The project would be required to comply with the County General Plan Noise Element, refer to Table 4, County Noise/Land Use Compatibility Guidelines. The County requires construction activities to be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and from 9 a.m. to 5 p.m. on Saturday. No commercial construction operations are permitted on Sunday or holidays. County standards require state construction noise, from a single piece of equipment or a combination of equipment, shall not exceed 75 dB Leq, when averaged over an eight (8) hour period, and measured at the nearest sensitive receptor. The nearest sensitive receptor, a residential use, is located approximately 368 feet south of the project site.

The USEPA has compiled data regarding noise generated by typical construction activities (see Table 5, Typical Construction Activity Noise). Not all activities presented in Table 5 apply to the project. However, grading would be required during construction of the project. As indicated

in Table 5, noise levels at the nearest sensitive receptor would not exceed the County's threshold of 75 dB Leq with the use of sound mufflers. Compliance with the thresholds set forth in the County's General Plan Noise Element would ensure that noise impacts remain less than significant.

Table 4, County Noise/Land Use Compatibility Guidelines

	Average-Daily Noise Level (dBA Community Noise Equivalent Level [CNEL])			
Land Use Category	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Residential	<60	60-70	70-75	>75
Industrial, Manufacturing, Utilities, Agriculture	<70	70-75	75-80	>80
Notes: Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involve are of normal conventional construction, without any special noise insulation requirements. Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Clearly Unacceptable: New construction or development clearly should not be taken.				
Source: County of Imperial, *General Plan Noise Element*, 2015.				

Table 5, Typical Construction Activity Noise

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA Leq)	Noise Levels at 100 Feet with Mufflers (dBA Leq)	Noise Levels at 200 Feet with Mufflers (dBA Leq)
Ground Clearing	82	76	70
Excavation, Grading	86	80	74
Foundations	77	71	65
Structural	83	77	71
Finishing	86	80	71
Source: United States Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.			

Operational Noise

The existing bridge has been permanently out of operation since 2022. As such, traffic generated noise does not currently exist at the project site. The primary source of noise in the project area includes traffic noise along Meloland Road and agricultural operations, such as heavy equipment and vehicle use. According to Division 7, Noise Abatement and Code, from the Imperial County Code of Ordinances, the County permits up to 70 dB of sound per one (1) hour in areas zone for agricultural use. Levels of highway traffic noise typically range from 70 to 80 dB(A) at a distance of 15 meters (50 feet) from the highway[14]. The proposed Meloland Road approach roads would include two 12-foot-wide lanes and a 55-mile-per-hour (mph) design speed. As such, it is expected that the project's traffic noise would be expected to generate less than the typical 70 to 80 dB(A) at a distance from 50 feet from a highway. It is anticipated that the new bridge would be used primarily by the

[14] U.S. Department of Transportation Federal Highway Administration, https://highways.dot.gov/public-roads/julyaugust-2003/living-noise#:~:text=Levels%20of%20highway%20traffic%20noise,to%20carry%20on%20a%20conversation. Accessed February 21, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

surrounding community. Operational noise levels would not create a substantial increase in ambient noise levels and impacts would remain less than significant.

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

b) High levels of groundborne vibration and noise would be generated during construction activities such as excavation, large mechanical pile driving machines, or the use of heavy earthmoving equipment. According to Federal Transit Administration[15], human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. However, significant vibration is typically associated with activities such as blasting or the use of pile drivers, neither of which would be required during implementation of the project. Therefore, impacts regarding groundborne vibration or groundborne noise levels would be less than significant.

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

c) The nearest airport to the project site is the Imperial County Airport, located approximately 7.3 miles west of the project site. The project site is not within the vicinity of a private airstrip, airport land use plan, or within two miles of a public use airport. Therefore, no impacts would occur.

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 does not propose any housing units. The project would provide a few temporary employment opportunities during construction; however, it is expected that these jobs would be filled by the workforce in the surrounding communities. Therefore, no direct or indirect population growth is anticipated. The project would follow the alignment of the existing bridge. The project does not propose the extension of roads or other infrastructure. As such, impacts would be less than significant.

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

b) There are no housing facilities on the project site. The primary land use surrounding the project site is agriculture, with a few residential uses. However, no housing units would be removed as part of the project. As such, the project would not displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere. As such, no impacts would occur.

XV. *PUBLIC SERVICES*

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

1) Fire Protection?	☐	☐	☐	☒

a.1) The project area is serviced by the Imperial County Fire Department (ICFD). The ICFD has nine (9) stations and six (6) contracting agencies providing fire protection services throughout the County[16]. The nearest fire station to the project site is a contracting station within the City of Holtville, approximately 6 miles east of the project site. The project would replace the existing structurally deficient bridge with a new underground pipe crossing to be constructed in the same alignment as the existing bridge. The existing bridge has been non-operation since 2022 with existing detours and signage in place. Accordingly, no new or additional traffic detour plan or temporary signage changing the existing detour would be necessary during construction. The project does not include any new land uses. Therefore, implementation of the project would not induce population growth that would necessitate the need for new or expanded fire protection services, the construction of which could cause significant environmental impacts. No impacts would occur.

2) Police Protection?	☐	☐	☐	☒

[15] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018.
[16] Imperial County Fire Department & Office of Emergency Services, https://firedept.imperialcounty.org/, Accessed February 20, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

a.2) The Imperial County Sherriff's Office (ICSO) provides law enforcement services to the County[17]. The nearest ICSO station is located within the City of Holtville, approximately 5.8 miles southeast of the project site. The project does not include any new land uses. Therefore, implementation of the project would not induce population growth that would necessitate the need for new or expanded law enforcement services, the construction of which could cause significant environmental impacts. No impacts would occur.

3) Schools? ☐ ☐ ☐ ☒

a.3) The project would not directly increase demand for public schools in the County. The project would not generate employment that would result in a considerable demand on school services. As discussed in Section XIV, *Population and Housing*, the project would not directly or indirectly induce population growth in the project area that would necessitate the need for new or expanded school services. Therefore, no impact would occur.

4) Parks? ☐ ☐ ☐ ☒

a.4) The Parks & Recreation Division of the Imperial County Department of Public Works is dedicated to the improvement, repair, expansion, and implementation of Parks & Recreation throughout the Imperial County[18]. The nearest County park is the Heber Community Center. As previously indicated, implementation of the project would not directly or indirectly induce population growth that would create a need for new or expanded park services. Accordingly, no impacts would occur.

5) Other Public Facilities? ☐ ☐ ☐ ☒

a.5) The nearest library to the project site is the Imperial County Library located approximately 8.4 miles west of the project site. As the project would not directly or indirectly induce population growth, implementation of the project would not create the need for new or expanded public facilities. No impacts would occur.

XVI. *RECREATION*

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

a) The project would not directly or indirectly induce population growth in the project, necessitating the increase in use of the existing neighborhood and regional parks. As such, no impacts regarding the increased use of existing neighborhood and regional parks or other recreational facilities would occur.

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 does not include or require the construction or expansion of recreational facilities. No impacts would occur.

XVII. *TRANSPORTATION* ***Would the project:***

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

a) Meloland Road is a minor collector road in an agricultural area. Neither the project site nor surrounding areas have pedestrian facilities or bike lanes. The nearest bus stop to the project site is the 5th Street and Pine Avenue stop, serviced by Imperial Valley Transit, is located approximately 5 miles southeast of the project site. Additionally, any traffic generated by the project would be insignificant in terms of what has been projected for the area in the General Plan's Circulation and Scenic Highways Element. The project would use the existing traffic detours that have been enacted intermittently since 2016. The project would not conflict with a program plan, policy, or ordinance addressing the circulation system, and no impact would occur.

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

b) CEQA guidelines 15064.3 subdivision (b) emphasizes the use of Vehicle Miles Travelled (VMT) as a key measure to assess transportation impacts. According to the Governor's Office of Planning and Research (OPR)'s Technical Advisory on Evaluating

[17] Imperial County Sherriff's Office, https://icso.imperialcounty.org/. Accessed February 20, 2024.
[18] Imperial County Department of Public Works, *Parks & Recreation*, https://publicworks.imperialcounty.org/divisions/#parks, Accessed February 20, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

Transportation Impacts[19], bridge projects are unlikely to lead to a substantial or measurable increase in vehicle travel, and therefore should screen out of an induced travel analysis (such as VMT), on the grounds that they are designed to improve the condition of existing transportation assets. Given the nature of the project, no impact would occur regarding consistency with CEQA Guidelines section 15064.3, subdivision (b).

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) The project would comply with applicable County and AASHTO design standards and would not include a new geometric design feature that would increase hazards or introduce incompatible uses. The bridge has been completely closed to traffic since 2022, and traffic detours have been in place for Meloland Road commuters since then. Thus, implementation of the project would improve passage for commuters, and not result in any impacts related to hazardous design features or incompatible uses.

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

d) As stated in above response XVII-c, the project would be designed to existing County and AASHTO standards and, as a result, provide adequate emergency access. Implementation of the project would not reduce the number of available traffic lanes or introduce physical barriers along Meloland Road. The existing bridge has been closed to traffic since 2022, and operation of the project would improve existing emergency access for adjacent properties and the surrounding community, as well as remove the existing detours enacted during the initial bridge closure. Therefore, the project would not impede emergency access, and no impacts would occur.

XVIII. *TRIBAL CULTURAL RESOURCES*

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or ☐ ☐ ☐ ☒

i) As detailed in the *Cultural Resources Identification Memorandum* (Appendix D), dated April 2024, an evaluation of the project site (encompassing both Meloland Bridge and the Central Drain) found that the project site is ineligible for listing across all four California Register of Historical Resources criterion categories. The project site is not featured in a local register of historical resources. Thus, the implementation of the project would not introduce any adverse changes to the project site's current listing or eligibility for listing in the California Register, and no impacts would occur.

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) AB 52 consultation notification letters were sent by the Imperial County Planning & Development Services on May 2, 2024, No response comment letters have been received to date.

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? ☐ ☐ ☒ ☐

[19] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts*, page 17. April 16, 2018.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	Less Than Significant Impact (LTSI)	No Impact (NI)

a) The proposed project includes removal of an existing bridge and replacement with a new pipe crossing and roadway within the same alignment as the existing bridge over the Central Drain. Two 60-inch diameter pipes would be installed under the roadway to direct drain flow within the Central Drain. The project would not require relocation or construction of a new or expanded water system, wastewater treatment, stormwater drainage, or a natural gas line.During construction activities, water would be used for dust control and would be obtained from a nearby IID-operated source, which would be included in the IID Encroachment Permit process. Due to the remote location of the project site, portable toilets would be available at the project site during construction for use by workers. Wastewater would be trucked to an appropriate wastewater treatment facility. Water from dewatering operations or any water from construction activities would bypass within the existing Central Drain as per IID standard practice for pipe crossings. An existing electrical distribution line may be required to be relocated by a temporary shoofly during portions of the construction. At completion, the lines would return to their previous alignment. Therefore, impacts associated with relocation or construction of new utility infrastructure 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) As a bridge removal and replacement with pipe crossing project, there are no water supplies necessary for operation of the project. During construction, minimal amounts of water would be trucked in for dust suppression purposes only and would not require new or expanded water facilities to serve the project. Therefore, impacts to water supplies 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 generate wastewater during operation. Wastewater generated in portable toilets during construction would be disposed of at a local wastewater treatment plant pursuant to existing State and local sanitation waste management guidelines. No additional wastewater treatment measures would be required as a result of construction or operation of the project. Thus, project impacts to wastewater are 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) Implementation of the project would generate a temporary, marginal increase in solid waste through the generation of wood, metal, soil, and vegetation during the construction process. These materials would be disposed of off-site at County-approved facilities (i.e. landfills). The nearest landfill to the project site is located at 104 East Robinson Road, about 5 miles northeast of the project site. CalRecycle does not offer solid waste generations rates for the agricultural sector, nor does it account for construction debris in their rates. However, materials resulting from the demolition of the existing bridge, vegetation removal process, and volume of human waste associated with construction would be temporary in nature and are not expected exceed the 8.25-million-ton capacity of this facility[20], or the capacity of any other landfills within the County. Solid waste generated from the project will be minimal in regard to landfill capacity and solid waste reduction goals, and impacts would be less than significant.

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

e) All work associated with the project would comply with State and County regulations pertaining to solid waste, including provisions outlined in Chapter 8.72 *Solid Waste Management* of Imperial County Municipal Code. As such, impacts associated with solid waste would be less than significant.

[20] Imperial County Air Pollution Control District, TITLE V OPERATING PERMIT, page 4, December 2023, https://apcd.imperialcounty.org/wp-content/uploads/2023/10/V-2625-Imperial-Landfill-DRAFT-Permit.pdf, Accessed March 19, 2024.

	Potentially Significant Impact (PSI)	Less Than Significant with Mitigation Incorporated (LTSMI)	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) According to CAL FIRE, the project site is not located in a state responsibility area[21]. The project site is within a local responsibility area (LRA). The project would be designed to applicable County standards regarding emergency access. The project would not reduce traffic lanes or create physical barriers along Meloland Road. As the existing bridge has been closed for over one year, implementation of the project would improve existing emergency access for the surrounding community. As a result, the project would enhance emergency access in the area and would not impair emergency response in the area. The project would not include any physical barriers or roadways that would impair emergency access. Accordingly, no impacts 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 does not have project occupants. The nearest sensitive receptor, a residential use, is located approximately 368 feet south of the project site. As there are not project occupants, implementation of the project would not expose project occupants to pollutant concentrations from wildfire and no impacts 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 would not require the installation or maintenance of additional infrastructure that may exacerbate fire risk. The proposed road improvements would follow the existing alignment of Meloland Road. Accordingly, no impacts 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 located in a flat area with no high or steep natural slopes. There is no potential for the proposed project to expose people or structures to landslides. Therefore, the proposed project would not result in impacts related to the exposure of people or structures to significant risks as a result of runoff, post-fire slope instability or drainage changes. 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

[21] CAL FIRE, *State Responsibility Area Viewer*, https://bof.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/, Accessed February 19, 2024.

	Impact (PSI)	Incorporated (LTSMI)	Impact (LTSI)	No Impact (NI)

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
- Diana Robinson, Planning Division Manager
- Rocio Yee, Project Planner
- Frank J. Fiorenza, PE, Resident Engineer II, Department of Public Works
- Imperial County Air Pollution Control District
- Fire Department
- Ag Commissioner
- Environmental Health Services
- Sheriff's Office

B. OTHER AGENCIES/ORGANIZATIONS

Imperial Irrigation District
Donald Vargas Pinera, Compliance Administrator II

Michael Baker International (environmental consultant)
Bob Stark - Project Director
Elizabeth Meyerhoff - Project Manager
Zhe Chen - Air Quality, Greenhouse Gas Emissions, Energy
Marisa Flores - Biological Resources
Samantha Martinez - Biological Resources
Stephen Anderson - Aquatic Resources
Kholood Abdo - Cultural Resources
Audrey Nickerson - Senior Environmental Planner
Haley Walker - Environmental Planner
Emily Edgington - Environmental Planner

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

V. REFERENCES

1. California Department of Forestry and Fire Protection, *Draft Fire Hazard Severity Zones in LRA – Imperial County*, scale 1:150,000, September 19, 2007

2. California Department of Forestry and Fire Protection, *State Responsibility Area Fire Hazard Severity Zones – Imperial County*, scale 1: 90,000, November 21, 2022.

3. California State Water Resources Control Board, *303(d) List of Impaired Water Bodies*, https://mywaterway.epa.gov/community/Alamo%20River,%20CA,%20USA/overview, accessed March 19, 2024.

4. California State Water Resources Control Board, *Water Quality Report Card – Colorado River Basin, Region 7*, October 2016.

5. County of Imperial General Plan EIR, prepared by Brian F. Mooney & Associates in 1993; and as Amended by County in 1996, 1998, 2001, 2003, 2006 & 2008, 2015, 2016.

6. De Vlamin et al. (2004). Irrigation runoff insecticide pollution of rivers in the Imperial Valley, California (USA). Environmental Pollution, 132(2), 213-229.

7. Department of Toxic Substances Control, *DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List)*, https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, Accessed March 20, 2024.

8. Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts*, page 17. April 16, 2018.

9. Imperial County Air Pollution Control District, *TITLE V OPERATING PERMIT*, page 4, December 2023, https://apcd.imperialcounty.org/wp-content/uploads/2023/10/V-2625-Imperial-Landfill-DRAFT-Permit.pdf, Accessed March 19, 2024.

10. Michael Baker International, *Air Quality/Greenhouse Gas Emissions Data*, March 13, 2024.

11. Michael Baker International, *Aquatic Resources Delineation Report*, April 23, 2024.

12. Michael Baker International, *Biological Resources Memorandum*, April 24, 2024.

13. Michael Baker International, *Cultural Resources Identification Memorandum for the Meloland Road at Central Drain Bridge Replacement Project, Imperial County California*, April 29, 2024.

VI. MITIGATED NEGATIVE DECLARATION – County of Imperial

The following Mitigated 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: Meloland Road Bridge Replacement at Central Drain; County Project Number 6838, IS# 23-0034

Project Applicant: Imperial County Public Works Department

Project Location: The project site is located approximately 4 miles west of the City of Holtville, within Imperial County, California. The existing wooden bridge structure is located approximately 1.9 miles north of Evan Hewes Highway, on Meloland Road, over the Central Drain. The replacement bridge would be located along the existing alignment.

Description of Project:
The project would demolish and replace the existing bridge at Meloland Road over Central Drain with an underground pipe crossing. Meloland Road is a north-south minor collector road serving the surrounding agricultural community and the Holtville area via Evan Hewes Highway. The Central Drain is a critical drain maintained and operated by the Imperial Irrigation District for the entire El Centro urban area, and discharges directly into the Rositas Waste Drain approximately 900 feet downstream, and subsequently into the Alamo River, located 0.25 mile from Meloland Road.

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 County 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 Mitigated 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, or by calling: (442) 265-1736.

NOTICE

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

6-27-2024 — Date of Determination

For — Jim Minnick, Director of Planning & Development Services

The County 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.

County Signature

06/27/24 — Date

SECTION 4

VIII. RESPONSE TO COMMENTS

(ATTACH DOCUMENTS, IF ANY, HERE)

IX. MITIGATION MONITORING & REPORTING PROGRAM (MMRP)

(ATTACH DOCUMENTS, IF ANY, HERE)

Appendix A – Air Quality/Greenhouse Gas Emissions Data

Meloland Project Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Meloland Project
Construction Start Date	10/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	4.80
Location	2467 Meloland Rd, El Centro, CA 92243, USA
County	Imperial
City	Unincorporated
Air District	Imperial County APCD
Air Basin	Salton Sea
TAZ	5606
EDFZ	19
Electric Utility	Imperial Irrigation District
Gas Utility	Southern California Gas
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Bridge/Overpass Construction	0.20	Mile	0.78	0.00	—	—	—	Assume 1056 feet (bridge lenght)*32 feet(bridge width)=33,792 ft^2

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-B	Water Active Demolition Sites
Construction	C-10-C	Water Unpaved Construction Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.15	1.82	14.5	22.1	0.03	0.70	92.1	92.9	0.65	9.23	9.88	—	4,067	4,067	0.16	0.04	1.22	4,085
Mit.	2.15	1.82	14.5	22.1	0.03	0.70	92.1	92.9	0.65	9.23	9.88	—	4,067	4,067	0.16	0.04	1.22	4,085
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.95	2.48	20.5	26.9	0.04	0.96	147	148	0.89	14.7	15.6	—	4,722	4,722	0.19	0.34	0.13	4,744
Mit.	2.95	2.48	20.5	26.9	0.04	0.96	146	147	0.89	14.6	15.5	—	4,722	4,722	0.19	0.34	0.13	4,744
% Reduced	—	—	—	—	—	—	1%	1%	—	1%	1%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.28	2.30	3.24	< 0.005	0.11	16.0	16.1	0.10	1.61	1.70	—	579	579	0.02	0.02	0.15	582
Mit.	0.34	0.28	2.30	3.24	< 0.005	0.11	16.0	16.1	0.10	1.60	1.70	—	579	579	0.02	0.02	0.15	582
% Reduced	—	—	—	—	—	—	< 0.5%	< 0.5%	—	< 0.5%	< 0.5%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.05	0.42	0.59	< 0.005	0.02	2.92	2.94	0.02	0.29	0.31	—	95.9	95.9	< 0.005	< 0.005	0.02	96.4
Mit.	0.06	0.05	0.42	0.59	< 0.005	0.02	2.91	2.93	0.02	0.29	0.31	—	95.9	95.9	< 0.005	< 0.005	0.02	96.4
% Reduced	—	—	—	—	—	—	< 0.5%	< 0.5%	—	< 0.5%	< 0.5%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.15	1.82	14.5	22.1	0.03	0.70	92.1	92.9	0.65	9.23	9.88	—	4,067	4,067	0.16	0.04	1.22	4,085
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.67	1.39	13.6	14.5	0.04	0.57	62.0	62.5	0.53	6.29	6.82	—	4,604	4,604	0.13	0.34	0.13	4,709
2025	2.95	2.48	20.5	26.9	0.04	0.96	147	148	0.89	14.7	15.6	—	4,722	4,722	0.19	0.06	0.05	4,744
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.11	0.09	0.89	0.97	< 0.005	0.04	4.02	4.06	0.03	0.41	0.44	—	304	304	0.01	0.02	0.15	311
2025	0.34	0.28	2.30	3.24	< 0.005	0.11	16.0	16.1	0.10	1.61	1.70	—	579	579	0.02	0.01	0.09	582
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	0.02	0.02	0.16	0.18	< 0.005	0.01	0.73	0.74	0.01	0.07	0.08	—	50.3	50.3	< 0.005	< 0.005	0.02	51.4
2025	0.06	0.05	0.42	0.59	< 0.005	0.02	2.92	2.94	0.02	0.29	0.31	—	95.9	95.9	< 0.005	< 0.005	0.02	96.4

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.15	1.82	14.5	22.1	0.03	0.70	92.1	92.9	0.65	9.23	9.88	—	4,067	4,067	0.16	0.04	1.22	4,085
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.67	1.39	13.6	14.5	0.04	0.57	62.0	62.5	0.53	6.29	6.82	—	4,604	4,604	0.13	0.34	0.13	4,709
2025	2.95	2.48	20.5	26.9	0.04	0.96	146	147	0.89	14.6	15.5	—	4,722	4,722	0.19	0.06	0.05	4,744
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.11	0.09	0.89	0.97	< 0.005	0.04	4.02	4.06	0.03	0.41	0.44	—	304	304	0.01	0.02	0.15	311
2025	0.34	0.28	2.30	3.24	< 0.005	0.11	16.0	16.1	0.10	1.60	1.70	—	579	579	0.02	0.01	0.09	582
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.02	0.02	0.16	0.18	< 0.005	0.01	0.73	0.74	0.01	0.07	0.08	—	50.3	50.3	< 0.005	< 0.005	0.02	51.4
2025	0.06	0.05	0.42	0.59	< 0.005	0.02	2.91	2.93	0.02	0.29	0.31	—	95.9	95.9	< 0.005	< 0.005	0.02	96.4

3. Construction Emissions Details

3.1. Phase 1 Bridge Demo (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52	1.28	11.0	12.8	0.02	0.54	—	0.54	0.49	—	0.49	—	2,416	2,416	0.10	0.02	—	2,424
Dust From Material Movemen	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.72	0.84	< 0.005	0.04	—	0.04	0.03	—	0.03	—	159	159	0.01	< 0.005	—	159
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Dust From Material Movemen	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.12	1.09	0.00	0.00	61.4	61.4	0.00	6.15	6.15	—	199	199	0.01	0.01	0.02	202
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	0.04	2.47	0.57	0.01	0.04	0.52	0.56	0.04	0.13	0.17	—	1,989	1,989	0.02	0.31	0.11	2,083
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	3.99	3.99	0.00	0.40	0.40	—	14.1	14.1	< 0.005	< 0.005	0.03	14.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.16	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	131	131	< 0.005	0.02	0.12	137
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.73	0.73	0.00	0.07	0.07	—	2.33	2.33	< 0.005	< 0.005	< 0.005	2.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	0.02	22.7

3.2. Phase 1 Bridge Demo (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.52	1.28	11.0	12.8	0.02	0.54	—	0.54	0.49	—	0.49	—	2,416	2,416	0.10	0.02	—	2,424

Dust From Material Movemen	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.72	0.84	< 0.005	0.04	—	0.04	0.03	—	0.03	—	159	159	0.01	< 0.005	—	159
Dust From Material Movemen	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.3	26.3	< 0.005	< 0.005	—	26.4
Dust From Material Movemen	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.12	1.09	0.00	0.00	61.4	61.4	0.00	6.15	6.15	—	199	199	0.01	0.01	0.02	202
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.06	0.04	2.47	0.57	0.01	0.04	0.52	0.56	0.04	0.13	0.17	—	1,989	1,989	0.02	0.31	0.11	2,083

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	3.99	3.99	0.00	0.40	0.40	—	14.1	14.1	< 0.005	< 0.005	0.03	14.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.16	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	131	131	< 0.005	0.02	0.12	137
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.73	0.73	0.00	0.07	0.07	—	2.33	2.33	< 0.005	< 0.005	< 0.005	2.36
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	0.02	22.7

3.3. Phase 2 IID Dewater (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.47	4.87	0.01	0.13	—	0.13	0.12	—	0.12	—	758	758	0.03	0.01	—	761
Dust From Material Movemen:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	68.5	68.5	< 0.005	< 0.005	—	68.8

Dust From Material Movemen	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Dust From Material Movemen	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.07	0.66	0.00	0.00	41.0	41.0	0.00	4.10	4.10	—	130	130	0.01	< 0.005	0.01	132
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.26	2.26	< 0.005	0.23	0.23	—	31.5	31.5	< 0.005	< 0.005	< 0.005	32.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	3.65	3.65	0.00	0.37	0.37	—	12.7	12.7	< 0.005	< 0.005	0.02	12.8
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20	0.20	< 0.005	0.02	0.02	—	2.85	2.85	< 0.005	< 0.005	< 0.005	2.97
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.67	0.67	0.00	0.07	0.07	—	2.09	2.09	< 0.005	< 0.005	< 0.005	2.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.49

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Phase 2 IID Dewater (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.47	4.87	0.01	0.13	—	0.13	0.12	—	0.12	—	758	758	0.03	0.01	—	761
Dust From Material Movemen:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	68.5	68.5	< 0.005	< 0.005	—	68.8
Dust From Material Movemen:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

Dust From Material Movemen:	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.07	0.66	0.00	0.00	41.0	41.0	0.00	4.10	4.10	—	130	130	0.01	< 0.005	0.01	132
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.26	2.26	< 0.005	0.23	0.23	—	31.5	31.5	< 0.005	< 0.005	< 0.005	32.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	3.65	3.65	0.00	0.37	0.37	—	12.7	12.7	< 0.005	< 0.005	0.02	12.8
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20	0.20	< 0.005	0.02	0.02	—	2.85	2.85	< 0.005	< 0.005	< 0.005	2.97
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.67	0.67	0.00	0.07	0.07	—	2.09	2.09	< 0.005	< 0.005	< 0.005	2.12
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.49
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Phase 3 IID Bypass & Pipe (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	16.7	19.7	0.03	0.83	—	0.83	0.77	—	0.77	—	3,477	3,477	0.14	0.03	—	3,489
Dust From Material Movemen	—	—	—	—	—	—	1.06	1.06	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.05	1.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	219	219	0.01	< 0.005	—	220
Dust From Material Movemen	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.3	36.3	< 0.005	< 0.005	—	36.4
Dust From Material Movemen	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.18	1.66	0.00	0.00	102	102	0.00	10.3	10.3	—	325	325	0.02	0.01	0.04	329
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	6.37	6.37	0.00	0.64	0.64	—	22.0	22.0	< 0.005	< 0.005	0.04	22.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	1.16	1.16	0.00	0.12	0.12	—	3.65	3.65	< 0.005	< 0.005	0.01	3.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Phase 3 IID Bypass & Pipe (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.32	1.94	16.7	19.7	0.03	0.83	—	0.83	0.77	—	0.77	—	3,477	3,477	0.14	0.03	—	3,489

Dust From Material Movemen:	—	—	—	—	—	—	0.28	0.28	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.05	1.24	< 0.005	0.05	—	0.05	0.05	—	0.05	—	219	219	0.01	< 0.005	—	220
Dust From Material Movemen:	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.3	36.3	< 0.005	< 0.005	—	36.4
Dust From Material Movemen:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.18	1.66	0.00	0.00	102	102	0.00	10.3	10.3	—	325	325	0.02	0.01	0.04	329
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	6.37	6.37	0.00	0.64	0.64	—	22.0	22.0	< 0.005	< 0.005	0.04	22.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	1.16	1.16	0.00	0.12	0.12	—	3.65	3.65	< 0.005	< 0.005	0.01	3.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Phase 4 Road Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	1.67	14.4	19.5	0.03	0.70	—	0.70	0.65	—	0.65	—	3,721	3,721	0.15	0.03	—	3,733
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.91	1.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	234	234	0.01	< 0.005	—	235
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.17	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	38.8	38.8	< 0.005	< 0.005	—	38.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.14	2.64	0.00	0.00	92.1	92.1	0.00	9.23	9.23	—	347	347	0.01	0.01	1.22	352
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	5.73	5.73	0.00	0.57	0.57	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	1.05	1.05	0.00	0.10	0.10	—	3.28	3.28	< 0.005	< 0.005	0.01	3.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Phase 4 Road Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.99	1.67	14.4	19.5	0.03	0.70	—	0.70	0.65	—	0.65	—	3,721	3,721	0.15	0.03	—	3,733
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.91	1.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	234	234	0.01	< 0.005	—	235
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	38.8	38.8	< 0.005	< 0.005	—	38.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.14	2.64	0.00	0.00	92.1	92.1	0.00	9.23	9.23	—	347	347	0.01	0.01	1.22	352
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.12	0.00	0.00	5.73	5.73	0.00	0.57	0.57	—	19.8	19.8	< 0.005	< 0.005	0.03	20.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	1.05	1.05	0.00	0.10	0.10	—	3.28	3.28	< 0.005	< 0.005	0.01	3.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Phase 1 Bridge Demo	Linear, Grubbing & Land Clearing	10/1/2024	11/1/2024	5.00	24.0	—
Phase 2 IID Dewater	Linear, Grading & Excavation	1/1/2025	2/15/2025	5.00	33.0	—
Phase 3 IID Bypass & Pipe	Linear, Drainage, Utilities, & Sub-Grade	1/1/2025	2/1/2025	5.00	23.0	—
Phase 4 Road Paving	Linear, Paving	4/1/2025	5/1/2025	5.00	23.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Phase 1 Bridge Demo	Cranes	Diesel	Average	1.00	8.00	367	0.29
Phase 1 Bridge Demo	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 1 Bridge Demo	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 1 Bridge Demo	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 1 Bridge Demo	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Phase 1 Bridge Demo	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Phase 2 IID Dewater	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Phase 2 IID Dewater	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 2 IID Dewater	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Phase 2 IID Dewater	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Phase 3 IID Bypass & Pipe	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Phase 3 IID Bypass & Pipe	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56

Phase 3 IID Bypass & Pipe	Cranes	Diesel	Average	1.00	8.00	367	0.29
Phase 3 IID Bypass & Pipe	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Phase 3 IID Bypass & Pipe	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 3 IID Bypass & Pipe	Graders	Diesel	Average	1.00	8.00	148	0.41
Phase 3 IID Bypass & Pipe	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 3 IID Bypass & Pipe	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Phase 3 IID Bypass & Pipe	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 3 IID Bypass & Pipe	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Phase 4 Road Paving	Graders	Diesel	Average	1.00	8.00	148	0.41
Phase 4 Road Paving	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 4 Road Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Phase 4 Road Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Phase 4 Road Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Phase 4 Road Paving	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 4 Road Paving	Surfacing Equipment	Diesel	Average	1.00	8.00	399	0.30
Phase 4 Road Paving	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Phase 4 Road Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Phase 1 Bridge Demo	Cranes	Diesel	Average	1.00	8.00	367	0.29

Phase 1 Bridge Demo	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 1 Bridge Demo	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 1 Bridge Demo	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 1 Bridge Demo	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Phase 1 Bridge Demo	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Phase 2 IID Dewater	Bore/Drill Rigs	Diesel	Average	1.00	8.00	83.0	0.50
Phase 2 IID Dewater	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 2 IID Dewater	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Phase 2 IID Dewater	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Phase 3 IID Bypass & Pipe	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Phase 3 IID Bypass & Pipe	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Phase 3 IID Bypass & Pipe	Cranes	Diesel	Average	1.00	8.00	367	0.29
Phase 3 IID Bypass & Pipe	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Phase 3 IID Bypass & Pipe	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Phase 3 IID Bypass & Pipe	Graders	Diesel	Average	1.00	8.00	148	0.41
Phase 3 IID Bypass & Pipe	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 3 IID Bypass & Pipe	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Phase 3 IID Bypass & Pipe	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 3 IID Bypass & Pipe	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Phase 4 Road Paving	Graders	Diesel	Average	1.00	8.00	148	0.41

Phase 4 Road Paving	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Phase 4 Road Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Phase 4 Road Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Phase 4 Road Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Phase 4 Road Paving	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Phase 4 Road Paving	Surfacing Equipment	Diesel	Average	1.00	8.00	399	0.30
Phase 4 Road Paving	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Phase 4 Road Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Phase 1 Bridge Demo	—	—	—	—
Phase 1 Bridge Demo	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 1 Bridge Demo	Vendor	0.00	10.2	HHDT,MHDT
Phase 1 Bridge Demo	Hauling	28.7	20.0	HHDT
Phase 1 Bridge Demo	Onsite truck	—	—	HHDT
Phase 2 IID Dewater	—	—	—	—
Phase 2 IID Dewater	Worker	10.0	18.5	LDA,LDT1,LDT2
Phase 2 IID Dewater	Vendor	1.00	10.2	HHDT,MHDT
Phase 2 IID Dewater	Hauling	0.00	20.0	HHDT
Phase 2 IID Dewater	Onsite truck	—	—	HHDT
Phase 3 IID Bypass & Pipe	—	—	—	—
Phase 3 IID Bypass & Pipe	Worker	25.0	18.5	LDA,LDT1,LDT2
Phase 3 IID Bypass & Pipe	Vendor	0.00	10.2	HHDT,MHDT

Phase 3 IID Bypass & Pipe	Hauling	0.00	20.0	HHDT
Phase 3 IID Bypass & Pipe	Onsite truck	—	—	HHDT
Phase 4 Road Paving	—	—	—	—
Phase 4 Road Paving	Worker	22.5	18.5	LDA,LDT1,LDT2
Phase 4 Road Paving	Vendor	0.00	10.2	HHDT,MHDT
Phase 4 Road Paving	Hauling	0.00	20.0	HHDT
Phase 4 Road Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Phase 1 Bridge Demo	—	—	—	—
Phase 1 Bridge Demo	Worker	15.0	18.5	LDA,LDT1,LDT2
Phase 1 Bridge Demo	Vendor	0.00	10.2	HHDT,MHDT
Phase 1 Bridge Demo	Hauling	28.7	20.0	HHDT
Phase 1 Bridge Demo	Onsite truck	—	—	HHDT
Phase 2 IID Dewater	—	—	—	—
Phase 2 IID Dewater	Worker	10.0	18.5	LDA,LDT1,LDT2
Phase 2 IID Dewater	Vendor	1.00	10.2	HHDT,MHDT
Phase 2 IID Dewater	Hauling	0.00	20.0	HHDT
Phase 2 IID Dewater	Onsite truck	—	—	HHDT
Phase 3 IID Bypass & Pipe	—	—	—	—
Phase 3 IID Bypass & Pipe	Worker	25.0	18.5	LDA,LDT1,LDT2
Phase 3 IID Bypass & Pipe	Vendor	0.00	10.2	HHDT,MHDT
Phase 3 IID Bypass & Pipe	Hauling	0.00	20.0	HHDT
Phase 3 IID Bypass & Pipe	Onsite truck	—	—	HHDT
Phase 4 Road Paving	—	—	—	—
Phase 4 Road Paving	Worker	22.5	18.5	LDA,LDT1,LDT2

Phase 4 Road Paving	Vendor	0.00	10.2	HHDT,MHDT
Phase 4 Road Paving	Hauling	0.00	20.0	HHDT
Phase 4 Road Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Apply dust suppressants to unpaved roads	84%	84%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Phase 1 Bridge Demo	5,500	—	0.78	0.00	—
Phase 2 IID Dewater	—	—	0.78	0.00	—
Phase 3 IID Bypass & Pipe	—	—	0.78	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Bridge/Overpass Construction	0.78	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	457	0.03	< 0.005
2025	0.00	457	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	30.5	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	62.7
AQ-PM	43.4
AQ-DPM	29.3
Drinking Water	58.3
Lead Risk Housing	38.3
Pesticides	92.1
Toxic Releases	32.1
Traffic	25.3
Effect Indicators	—
CleanUp Sites	25.6
Groundwater	65.7
Haz Waste Facilities/Generators	84.5
Impaired Water Bodies	99.5
Solid Waste	98.9

Sensitive Population	—
Asthma	77.6
Cardio-vascular	83.7
Low Birth Weights	38.7
Socioeconomic Factor Indicators	—
Education	84.9
Housing	40.3
Linguistic	94.6
Poverty	80.3
Unemployment	73.4

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	28.25612729
Employed	3.939432824
Median HI	30.21942769
Education	—
Bachelor's or higher	23.23880405
High school enrollment	100
Preschool enrollment	46.22096753
Transportation	—
Auto Access	59.70742974
Active commuting	21.17284743
Social	—
2-parent households	57.11535994

Voting	19.06839471
Neighborhood	—
Alcohol availability	78.28820737
Park access	20.21044527
Retail density	14.35904016
Supermarket access	7.981521879
Tree canopy	4.042089054
Housing	—
Homeownership	64.04465546
Housing habitability	62.23533941
Low-inc homeowner severe housing cost burden	34.69780572
Low-inc renter severe housing cost burden	68.75401001
Uncrowded housing	35.32657513
Health Outcomes	—
Insured adults	34.04337226
Arthritis	0.0
Asthma ER Admissions	38.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	75.8
Cognitively Disabled	50.3
Physically Disabled	34.8
Heart Attack ER Admissions	20.4

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	50.2
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	4.5
Elderly	74.7
English Speaking	3.6
Foreign-born	75.9
Outdoor Workers	8.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	83.4
Traffic Density	37.5
Traffic Access	23.0
Other Indices	—
Hardship	79.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	89.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per Construction Questionniare
Construction: Off-Road Equipment	Per Construction Questionniare
Construction: On-Road Fugitive Dust	Per construction questionnaire, the haul road would be paved The percentage paved road for worker and vendor have been updated to 85 percent per conference call with ICAPCD staffs, Monica Soucier, Curtis Blondell, and Ismael Garcia.

Appendix B – Aquatic Resources Delineation Report

Michael Baker
INTERNATIONAL

We Make a Difference

April 23, 2024 JN 199682

IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT
Attn: Frank J. Fiorenza, PE
155 South 11th Street
El Centro, California 92243

SUBJECT: Aquatic Resources Delineation of State and Federal Jurisdictional Waters for the proposed Meloland Bridge Replacement Project – City of Holtville, Imperial County, California

Dear Mr. Fiorenza:

Michael Baker International has prepared this report to document the results of a literature review and formal delineation of State and federal jurisdictional waters, including wetlands, that were conducted for the proposed Meloland Bridge Replacement Project (project or project site) located in the City of Holtville, Imperial County, California. Specifically, the delineation was conducted to identify and document the extent of aquatic and other hydrologic features within the project site that potentially fall under the jurisdictional authority of the US Army Corps of Engineers (USACE), the Colorado River Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). This report summarizes the methodology used throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by Michael Baker. This report presents Michael Baker's determination of jurisdictional boundaries based on the most current regulations, written policy, and guidance approved by the regulatory agencies. However, please note that only the regulatory agencies can make a final determination of jurisdictional limits.

PROJECT LOCATION

The 12.14-acre project site is located in Imperial County within portions of Sections 19 and 20 of Township 15 South Range 15 East on the US Geological Survey's (USGS) *Holtville West, California* 7.5-minute quadrangle (USGS n.d.-b). The existing bridge (Bridge No. 58C-0155) is located on Meloland Road over the Central Drain, approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the city of Holtville, California. Meloland Road is a north–south major collector road and serves both the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road; it also provides connectivity to the cities of Imperial and north El Centro. Refer to Figure 1, *Project Vicinity* and Figure 2, *Project Site*.

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PROJECT DESCRIPTION

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over the Central Drain with a pipe crossing. The primary objective of the project is to provide a safe, reliable crossing for the public that meets all current design standards. The purpose of the project is to replace the existing, 1940s-built, structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards and ensure drain flow is not impeded. The bridge was closed intermittently to traffic in 2016 due to bridge inspection and remedial work, with a permanent closure instituted in 2022. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District. This drain, which serves the agricultural community, is also the main drain that serves the El Centro urban area, which then discharges to the Alamo River, located approximately 8 miles east of El Centro.

STATE AND FEDERAL REGULATIONS

Three key agencies regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The USACE regulates activities that result in the discharge of dredged or fill material into waters of the U.S. (WoUS), including wetlands, pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the State Water Resources Control Board (SWRCB) and its nine districts, including the Colorado River RWQCB, regulate discharges to waters of the State (WoS), including wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act, and State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and the CDFW regulates alterations to lakes, streambeds, and associated riparian habitats pursuant to Section 1600 et seq. of the California Fish and Game Code (CFGC).

LITERATURE REVIEW

Prior to conducting the field delineation, Michael Baker reviewed relevant literature and materials to obtain a general understanding of the environmental setting and preliminarily identify features/areas within the project site that may fall under the jurisdiction of the regulatory agencies. Refer to the subsections below for a summary of relevant materials, databases, technical reports, and guidance documents that were obtained/reviewed by Michael Baker. In addition, a complete list of references is provided as Attachment G to this report.

Salton Sea Watershed

The project site is located within the Salton Sea Watershed (HUC 18100200). The project site is approximately 0.25 miles west of the Alamo River, which is a tributary to the Salton Sea. The Salton Sea watershed comprises approximately 8,360 square miles in Imperial County. The watershed is composed of four main components, the New River, Alamo River, Imperial Valley Agricultural Drains, and Coachella Valley Stormwater Channel, all of which ultimately connect to the Salton Sea. The Alamo River is not a Designated River under the National Wild and Scenic Rivers Act.

Soils

According to the *Custom Soil Resources Report for Imperial County, California, Imperial Valley Area* (US Department of Agriculture [USDA] n.d.-a), the project site is underlain by one soil map unit: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115). Michael Baker also reviewed the *Hydric Soils List for California* (USDA n.d.-b) to preliminarily verify whether the soil map units listed above were classified as a "hydric soil" in the Salton Sea area. According to the list, the subject soil map units are not listed as hydric.

National Wetlands Inventory

Based on a review of the US Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) (USFWS n.d.), one riverine resource mapped in the NWI coincides with the project site, which is shown in Attachment B. The mapped riverine feature within the project site (Central Drain) flows to the northeast and discharges into the Rositas Waste Drain approximately 900 feet downstream of the project site. This feature is described as riverine lower perennial unconsolidated bottom permanently flooded excavated (R2UBHx).

Flood Zone

Based on a review of the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer (FEMA n.d.), the project site is located within Flood Insurance Rate Map Panel Number 06025C1750C. The project site occurs within Zone X as shown in Attachment C. Zone X is described as an area of minimal flood hazard.

National Hydrography Dataset

Based on a review of the National Hydrography Dataset Advanced Viewer (USGS n.d.-a), two canals/ditches are mapped within the project site, as shown in Attachment D. These features flow in a north/northeast direction, eventually flowing into the Alamo River.

FIELD METHODOLOGY

Michael Baker wetland delineators Stephen Anderson and Samantha Martinez conducted a jurisdictional delineation/field survey of the project site on March 26, 2024, using the most recent, agency-approved methodology, to identify and map the extent of State and federal jurisdictional features (i.e., wetland and non-wetland WoUS, WoS, streambed, and associated riparian vegetation). Based on the project's location, potential State and federal wetlands were delineated in accordance with the methods and guidance provided in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (USACE 2008), and the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019).

While in the field, jurisdictional features were recorded on an aerial photograph at a scale of 1" = 400' using topographic contours and visible landmarks as guidelines. Data points were recorded in the field using a Garmin GPS Map 64sx to identify specific widths and length of jurisdictional features and the location of any ordinary high-water mark (OHWM) indicators, photograph points, soil pits, and other pertinent site characteristics. These data were then uploaded as a .shp file and confirmed/refined to ensure accuracy and consistency with hard copy notes and aerial mapping completed in the field. Michael Baker then used Esri ArcGIS Pro software to calculate the total acreage of jurisdictional features and prepare final project figures.

RESULTS

Non-Wetland Features

One perennial drainage feature was identified within the project site during the March 2024 site visit. A small portion of the confluence with the Barbara Worth Drain is also included within the project site (refer to Attachment E, *Site Photographs*).

Central Drain

The Central Drain is an earthen perennial channel that begins at the southwest end of the project site and flows in a northeasterly direction through to the northeastern end of the project site. The Central Drain flows northeast outside of the project site, eventually flowing into the Rositas Waste Drain approximately 900 feet downstream, and subsequently into the Alamo River roughly 0.25 miles from the project site. At the time of the survey, the Central Drain contained flowing water through the project site. The banks of the Central Drain are vegetated similarly to the immediate upstream and downstream portions outside of the project site and are dominated by common reed (*Phragmites australis*; FACW), arrow weed (*Pluchea sericea*; FACW), Bermuda grass (*Cynodon dactylon*; FACU), tamarisk (*Tamarix ramosissima*; UPL), and western sea purslane (*Sesuvium verrucosum*; FACW).[1] An OHWM is present within the Central Drain that is approximately 25 feet wide and defined by vegetation matting and a clear line impressed on the bank. The bank-to-bank width of the Central Drain is approximately 75 feet and about 6 feet height. No associated riparian vegetation was observed outside of the banks of the Central Drain.

Wetland Features

Two soil pits were dug within the Central Drain to determine if wetland conditions are present. Although wetland hydrology and hydrophytic vegetation were present within the Central Drain, wetland soils were not. Therefore, no wetlands are present within the project site (refer to Attachment F, *Soil Pit Data Forms*).

FINDINGS

The Central Drain is a tributary to the Alamo River, and subsequently the Salton Sea. This feature is a perennial feature based on historical aerial imagery, which shows surface flows present year-round and the

1 FACW: Facultative Wet; FACU: Facultative Upland; UPL: Obligate Upland

NWI classification as a perennial feature; exhibits relatively permanent flow; and exhibits a continuous surface connection to a downstream traditional navigable water (TNW). However, this feature is a man-made excavated ditch used for agricultural purposes, excavated wholly in uplands to drain uplands, and would therefore be exempt from USACE jurisdiction pursuant to Section 404 of the Clean Water Act.

Due to the presence of an OHWM and surface flows, the Central Drain is subject to RWQCB jurisdiction. The jurisdiction of the RWQCB totals approximately 0.68 acres (1,456 linear feet) of non-wetland WoS. In addition, the Central Drain exhibited a bed and bank and is therefore considered under the jurisdiction of the CDFW under Section 1600 et seq. of CFGC; the on-site portion of the Central Drain comprises approximately 1.87 acres (1,456 linear feet) of jurisdictional vegetated streambed. No associated riparian habitat was observed in association with the Central Drain. Refer to Table 2 below and Figures 3 and 4 provided in Attachment A.

Table 2: State and Federal Jurisdictional Resources

Feature Name	Location Lat/Long	Cowardin Type	Linear Feet	Acreage within Project Site			
				RWQCB		CDFW	
				Non-Wetland WoS	Wetland WoS	Vegetated Streambed	Associated Riparian
Central Drain	32.830297°/ -115.448589°	Riverine	1,456	0.68	--	1.87	--
TOTAL			**1,456**	**0.68**	--	**1.87**	--

CONCLUSIONS AND RECOMMENDATIONS

The USACE regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Although evidence of an OHWM was noted within the aquatic feature at the project site, the feature exhibits a perennial flow regime and a continuous surface connection to a downstream TNW. This feature is a man-made excavated ditch in an agricultural area and would therefore not be subject to USACE jurisdiction under Section 404. Therefore, there is no USACE jurisdiction within the project site and no Section 404 permit is required prior to commencement of construction activities.

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Act. Temporary and/or permanent impacts resulting from the proposed project would require Water Discharge Requirements from the RWQCB pursuant to the Porter-Cologne Act prior to the commencement of construction activities. The RWQCB also requires that California Environmental Quality Act (CEQA) compliance be obtained prior to obtaining authorization. An application fee is required with the application package and is calculated based on the acreage of jurisdictional impacts.

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 et seq. of the CFGC. Therefore, formal notification to and subsequent authorization from the CDFW would be required prior to commencement of any construction activities within the CDFW jurisdictional areas. The

CDFW also requires that CEQA compliance be obtained prior to issuing the final Lake and Streambed Alteration Agreement. In addition, a notification fee is required, which is calculated based on project costs within CDFW jurisdictional areas.

Please do not hesitate to contact me at (949) 330-4147 or stephen.anderson@mbakerintl.com should you have any questions or require further information.

Sincerely,

Stephen Anderson

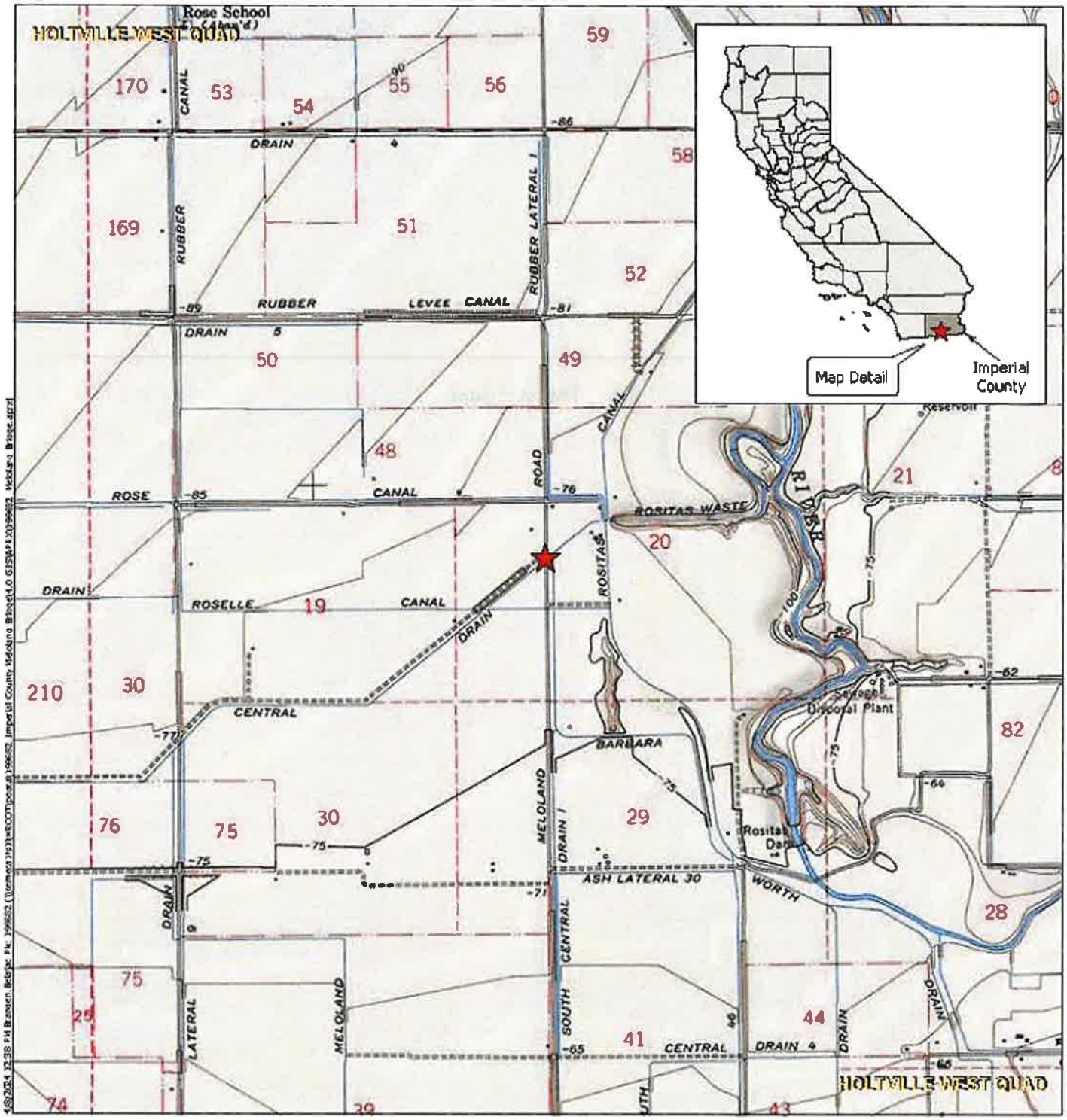
Stephen Anderson
Senior Biologist
Natural Resources & Environmental Services

Attachments:

A. Project Figures
B. USFWS National Wetlands Inventory Map
C. FEMA Flood Insurance Rate Map
D. USGS National Hydrography Dataset Advanced Viewer Map
E. Site Photographs
F. Soil Pit Data Forms
G. References

Attachment A

Project Figures



Legend

★ Project Site

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Vicinity

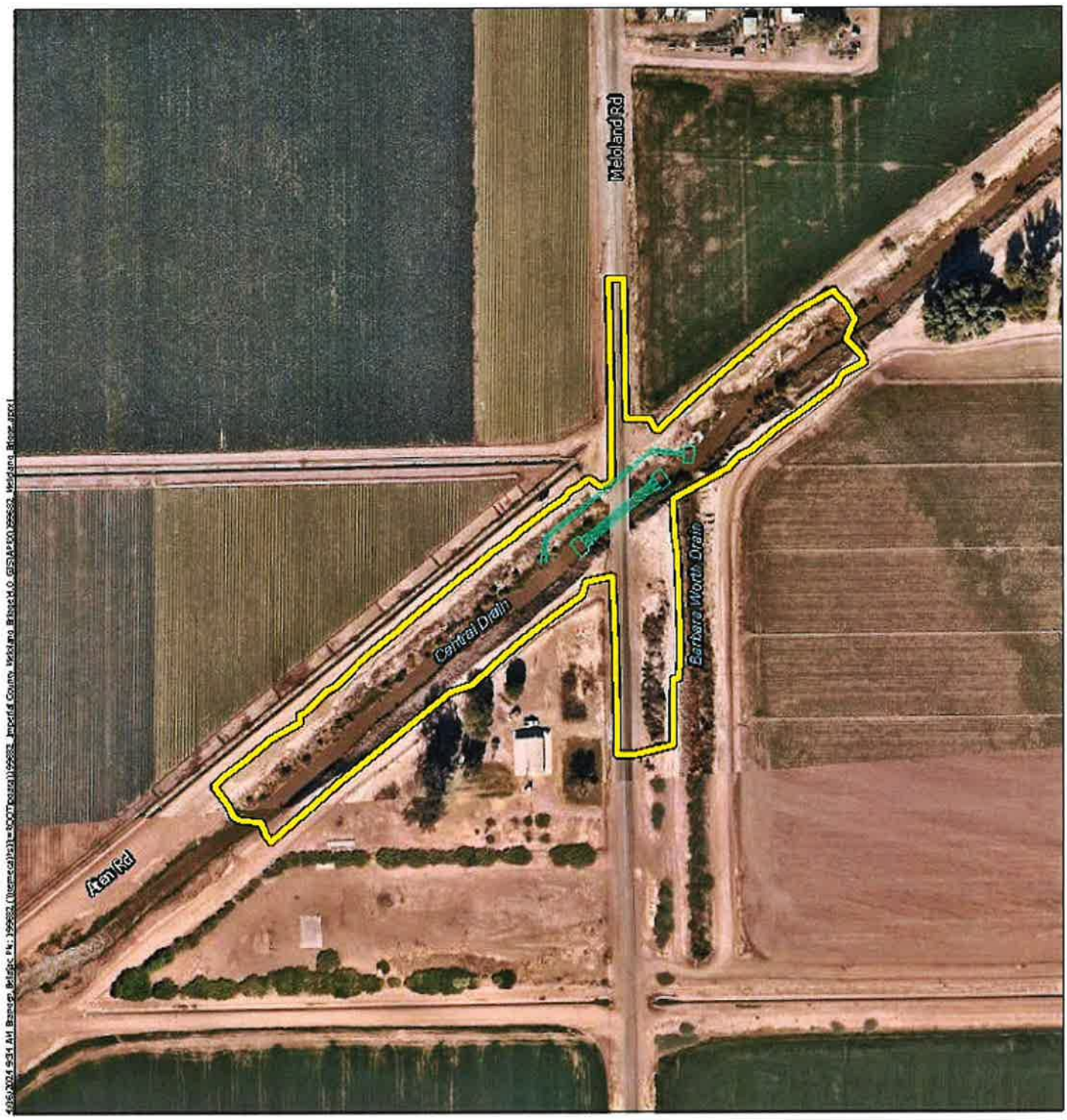
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri USA Topo Maps, ArcGIS Online, Holtville West USGS 7.5-Minute topographic quadrangle map: Holtville, California

Figure 1

EEC ORIGINAL PKG



Legend

- Pipe Design
- Project Site (3.72 ac)

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Site

Figure 2

EEC ORIGINAL PKG

Legend

- Site Location
- Soil Pits
- Flow Direction
- Project Site
- RWQCB Non-Wetland Waters of the State (0.68 ac)

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0 100 200 Feet

Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

RWQCB Jurisdictional Map

Figure 3

EEC ORIGINAL PKG

Legend

- Site Location
- Project Site
- Flow Direction
- CDFW Streambed (1.87 ac)

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0 100 200 Feet

Source: 2023 Maxar Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

CDFW Jurisdictional Map

Figure 4

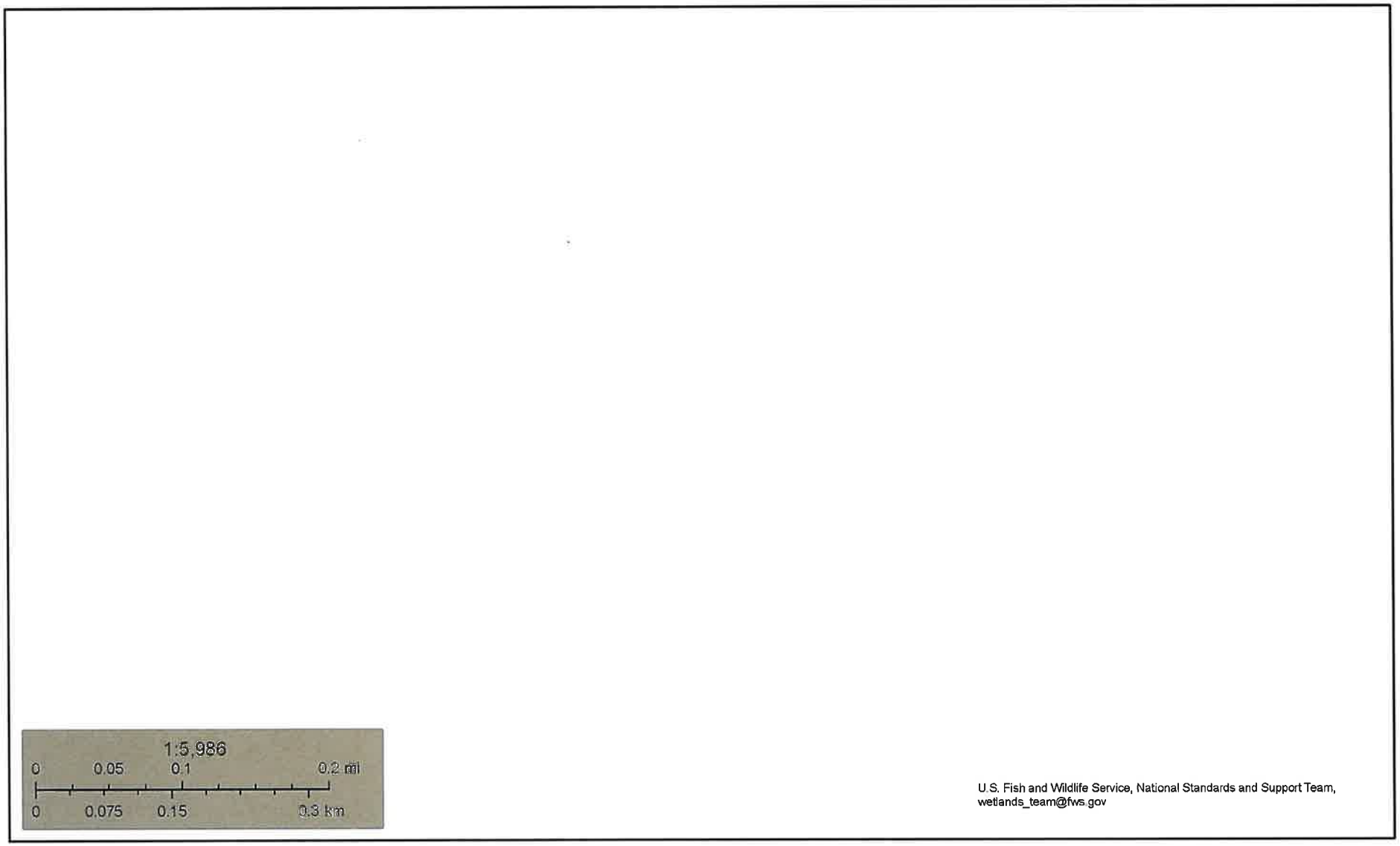
EEC ORIGINAL PKG

Attachment B

USFWS National Wetlands Inventory Map

Imperial County Meloland Bridge Project

EEC ORIGINAL PKG



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

February 16, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

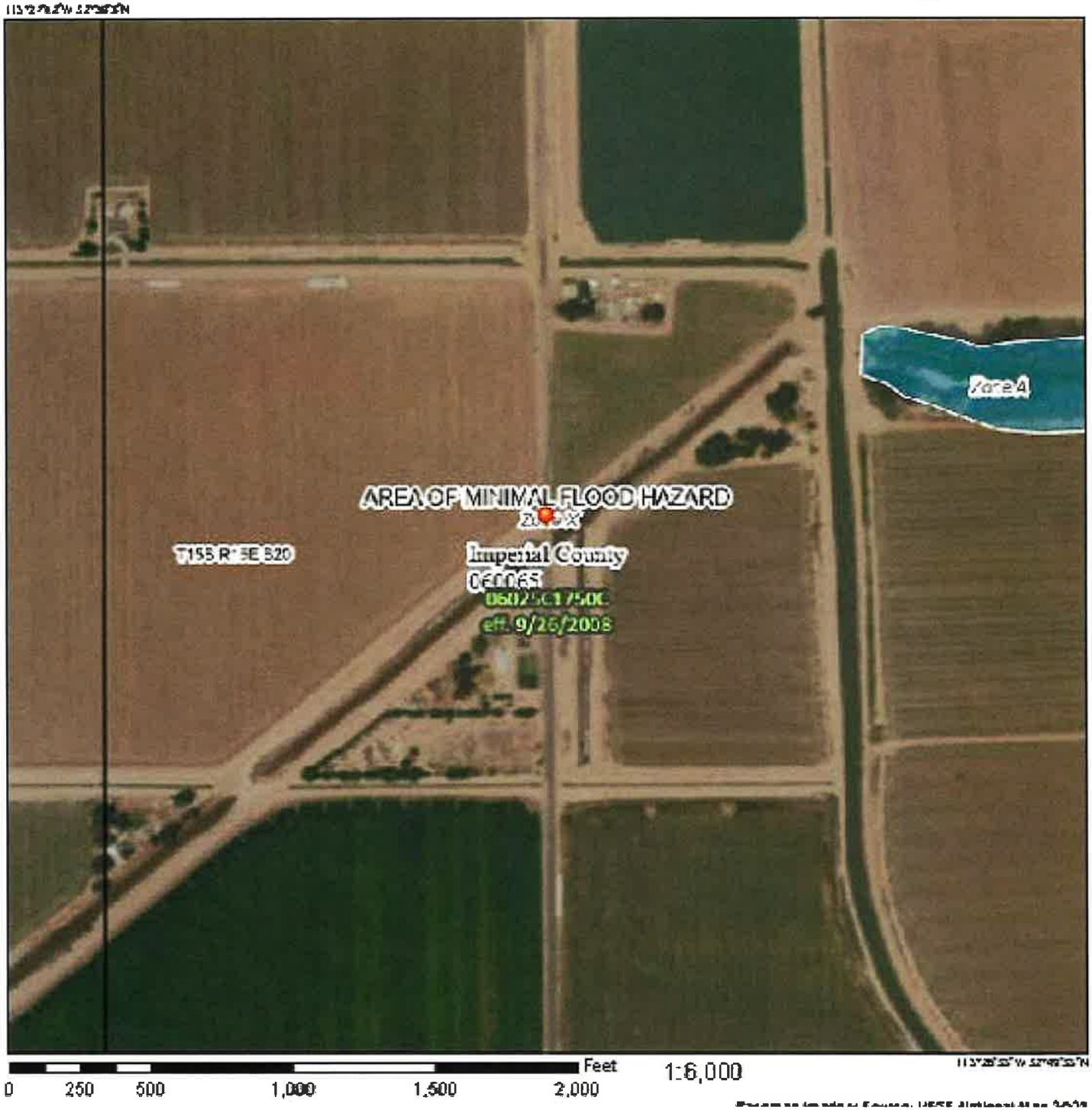
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment C

FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

OTHER AREAS OF FLOOD HAZARD

OTHER AREAS

GENERAL STRUCTURES

OTHER FEATURES

MAP PANELS

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/25/2024 at 2:10 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment D

USGS National Hydrography Dataset Advanced Viewer Map

Meloland Bridge Replacement Project

EEC ORIGINAL PKG

4/8/2024

Flowlines

Non-Network

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

1.2m Resolution Metadata

1:4,183

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.19 km

Maxar

Attachment E

Site Photographs

Photograph 1: Downstream view of Central Drain from Meloland Road Bridge, facing E.

Photograph 2: Upstream view of Central Drain from Meloland Road Bridge, facing SW.

Photograph 3: Upstream view of the western boundary of Central Drain, facing SW.

Photograph 4: Downstream representative view of Barbara Worth Drain adjacent to the project site, facing N.

EEC ORIGINAL PKG

Attachment F

Soil Pit Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Meloland Bridge City/County: Holtville, Imperial County Sampling Date: 3/26/24

Applicant/Owner: Imperial County Public Works Department State: CA Sampling Point: 1

Investigator(s): Stephen Anderson, Samantha Martinez Section, Township, Range: S 19 and 20, T 15 S, R 15 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): Arid West Lat: 32°49'50.42"N Long: 115°26'53.32"W Datum: WGS 1984

Soil Map Unit Name: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115) NWI classification: R2UBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Phragmites australis	15	Yes	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 15' radius)			
1. Cynodon dactylon	35	Yes	FACU
2. Sesuvium verrucosum	10	Yes	FACW
3. Heliotropium curassavicum	5	No	FACU
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	7.5YR 4/3	100					Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ____ Depth (inches): _____

Water Table Present? Yes ____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Meloland Bridge City/County: Holtville, Imperial County Sampling Date: 3/26/24

Applicant/Owner: Imperial County Public Works Department State: CA Sampling Point: 2

Investigator(s): Stephen Anderson, Samantha Martinez Section, Township, Range: S 19 and 20, T 15 S, R 15 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): Arid West Lat: 32°49'47.12"N Long: 115°26'58.47"W Datum: WGS 1984

Soil Map Unit Name: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115) NWI classification: R2UBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Pluchea sericea	25	Yes	FACW
2. Tamarix ramosissima	10	Yes	UPL
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 15' radius)			
1. Cynodon dactylon	20	Yes	FACU
2. Heliotropium curassavicum	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species 25	x 2 =	50
FAC species _____	x 3 =	_____
FACU species 30	x 4 =	120
UPL species 10	x 5 =	50
Column Totals: 65 (A)		220 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/3	100					Silty clay	
10-16	7.5YR 4/3	99	10R 4/6	1	C	PL	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) **(Riverine)**
- ✓ Sediment Deposits (B2) **(Riverine)**
- ✓ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Attachment G

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Appendix C – Biological Resources Memorandum

Michael Baker
INTERNATIONAL

MEMORANDUM

TO:	Frank J. Fiorenza, PE Imperial County Public Works Department	DATE:	April 26, 2024
FROM:	Samantha Martinez, Biologist Marisa Flores, Natural Resources Technical Manager		
SUBJECT:	Biological Resources Memorandum for the proposed Meloland Road Bridge Replacement over Central Drain (Bridge No. 58C-0155) Project, Imperial County, CA		

This memorandum presents the results of a biological resources habitat assessment for the Meloland Bridge Replacement Over Central Drain Project. The report is intended to satisfy the biological resources requirements of the California Environmental Quality Act (CEQA) and support preparation of the Initial Study/Mitigated Negative Declaration (ISMND/MND).

The 12.14-acre project site is located in unincorporated Imperial County within portions of Sections 19 and 20 of Township 15 South Range 15 East. The existing bridge (Bridge No. 58C-0155) is located on Meloland Road over the Central Drain, approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the City of Holtville, California. Meloland Road is a north–south major collector road and serves both the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road; it also provides connectivity to the cities of Imperial and north El Centro. Refer to Attachment 1 – Figure 1, *Project Vicinity* and Figure 2, *Project Site*.

Project Description

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over the Central Drain (Bridge No. 58C-0155) with a pipe crossing. The primary objective of the project is to provide a safe, reliable crossing for the public that meets all current design standards. The purpose of the project is to replace the existing, 1940s-built, structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards and ensure drain flow is not impeded. The bridge was closed intermittently to traffic in 2016 due to bridge inspection and remedial work, with a permanent closure instituted in 2022. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District (IID). This drain, which serves the agricultural community, is also the main drain that serves the El Centro urban area, which then discharges to the Alamo River, located approximately 8 miles east of El Centro.

Methods

Michael Baker biologists Marisa Flores and Samantha Martinez conducted a field survey and habitat assessment on March 12, 2024, to document the existing biological conditions within the project site and a 100-foot buffer (study area). Vegetation communities occurring in the study area were classified in accordance with the vegetation descriptions provided in *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evens 2009). In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, condition of on-site vegetation communities and land uses were noted. Photographs documenting the existing project site conditions are provided in Attachment 2. Refer to Table 1 below for a summary of the survey dates, timing, and weather conditions.

TABLE 1: SURVEY DATES AND WEATHER CONDITIONS

Date	Time	Weather Conditions (start/end)
March 12, 2024	0930-1050	65°F/71°F, 20%/20% cloud coverage, 7/4 mph winds

Plant nomenclature used in this report follows the Jepson eFlora (Jepson Flora Project 2024) and nomenclature of birds follows the most recent annual supplement of the American Ornithological Society's Checklist of North American Birds (Chesser et al. 2023). Mammal nomenclature used for this report follows the Mammal Species of the World, 3rd Edition (Wilson and Reeder 2005).

Prior to the site visit, a literature review and records search were conducted to identify the sensitive biological resources that have the potential to occur on or within the general vicinity of the project site. Occurrence records for special-status plant and wildlife species within the USGS Holtville West, California 7.5-minute quadrangle (USGS 2024) and surrounding quadrangles (Holtville NE, Bonds Corner, Holtville East, Brawley, Calexico, Heber, El Centro, Alamorio) were reviewed through a query of the California Natural Diversity Database (CNDDB) RareFind 5 (CNDDB 2024) (Attachment 3), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2024) (Attachment 4), and the US Fish and Wildlife Service (USFWS) IPaC Species List (USFWS 2024a) (Attachment 5). Additional databases that have been reviewed for context:

- Google Earth Pro Historical Aerial Imagery, various views from the 1950s to 2022 (Google Earth Pro 2024; Historic Aerials 2024);
- Custom Soil Resource Report for Imperial County, California, Imperial Valley Area (USDA 2024) (Attachment 6);
- USFWS Critical Habitat Mapper and Environmental Conservation Online System (USFWS 2024b);
- USGS Holtville West, California 7.5-minute quadrangle topography map;
- USFWS (2019) National Wetlands Inventory (Attachment 7).

Results

Vegetation Communities/Land Uses

The study area comprises the existing developed roadway and bridge, disturbed areas, cattail marshes, arrow weed scrub/open water, and quailbush scrub (Figure 3, *Vegetation Communities/Land Use*). The Central Drain is an earthen perennial channel that begins at the southwest end of the study area and flows in a northeasterly direction. Vegetation in the study area includes a mix of native and non-native species. Plant species included quailbush (*Atriplex lentiformis*), nettleleaf goosefoot (*Chenopodium murale*), salt grass (*Distichlis spicata*), salt heliotrope (*Heliotropium curassavicum*), date palm (*Phoenix dactylifera*), arrow weed (*Pluchea sericea*), annual rabbitsfoot grass (*Polypogon monspeliensis*), London rocket (*Sisymbrium irio*), spiny sowthistle (*Sonchus asper*), Athel tamarisk (*Tamarix aphylla*), five-stamen tamarisk (*Tamarix chinensis*), broadleaf cattail (*Typha latifolia*), and dock (*Rumex sp.*). Descriptions for each vegetation community/land use are described in Table 2.

TABLE 2: VEGETATION COMMUNITIES/LAND USE WITHIN THE STUDY AREA

Vegetation Community/ Land Use	Description	Acreage
Developed	Developed areas are considered a land use type. Areas mapped as developed in the study area include existing paved roadway (Meloland Road) and buildings.	0.42
Disturbed	Areas mapped as disturbed habitat have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association but continue to retain a compacted soil substrate. Within the study area, these areas are used as access routes.	5.24
Agriculture	Agricultural lands have been modified and maintained to support crops.	3.61

Vegetation Community/ Land Use	Description	Acreage
***Typha* (*angustifolia*, *domingensis*, *latifolia*) Herbaceous Alliance** Cattail marshes	This community is dominated by cattails and associated with agricultural drainages within the study area. Also present were small patches of arrow weed and immature tamarisk.	0.34
***Pluchea sericea* Shrubland Alliance** Arrow weed thickets*	This community is dominated by arrow weed growing on the banks of the Central Drain. The herbaceous layer includes salt heliotrope, dock, and annual rabbitsfoot grass.	2.29
***Atriplex lentiformis* Shrubland Alliance** Quailbush scrub	This community consists of a primarily monotypic stand of quailbush. A few scattered arrow weeds occur within the community.	0.24
	TOTAL	12.14
* The arrow weed thickets community includes open water at the bottom of the Central Drain. Routine vegetation maintenance in the channel by the Imperial Irrigation District changes the amount of vegetation in the channel.		

Soils

According to the Custom Soil Resources Report for Imperial County, California, Imperial Valley Area (US Department of Agriculture [USDA] 2024), only one soil map unit, Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115), is present in the study area.

General Wildlife

The most common animals detected in the study area were birds, including red-winged blackbird *(Agelaius phoeniceus)*, great-tailed grackle *(Quiscalus mexicanus)*, western meadowlark *(Sturnella neglecta)*, American pipit *(Anthus rubescens)*, great egret *(Ardea alba)*, marsh wren *(Cistothorus palustris)*, yellow-rumped warbler *(Setophaga coronata)*, Gila woodpecker *(Melanerpes uropygialis)*, Eurasian collared-dove *(Streptopelia decaocto)*, northern mockingbird *(Mimus polyglottos)*, house sparrow *(Passer domesticus)*, black phoebe *(Sayornis nigricans)*, and mourning dove (*Zenaida macroura*). Other wildlife species found in the study area were domestic dog *(Canis familiaris)*, desert cottontail *(Sylvilagus audubonii)*, and common muskrat *(Ondatra zibethicus)*.

Special-Status Species Resources

No special-status species were observed during the habitat assessment, however suitable habitat for several special-status species occurs in the study area. Although canals and agricultural areas in Imperial County generally provide suitable burrowing owl (*Athene cunicularia*) habitat, no suitable burrow structures were observed in the study area, and this species was not observed during the site visit. Based on a review of the CNDDB and CNPS, there is a potential for burrowing owl to forage in the study area (Figure 4).

Birds were observed nesting on the beams of the bridge during the field survey and there is a potential for other birds to be nesting in vegetated areas throughout the study area. There is also potentially suitable habitat for Yuma Ridgway's Rail (*Rallus obsoletus yumanensis*), federally and state listed as endangered, in the cattail marsh adjacent to the project site.

There is no suitable habitat for the special-status bat species identified in the CNDDB (2024) review; however, there is a potential for common bats, such as Mexican free-tailed bat (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*), and little brown bat (*Myotis lucifugus*), to occur in the study area. These species could potentially roost within the Meloland Road bridge joints and hinges. Although these species are not special-status, maternity and winter roosting habitat is rapidly declining, and a loss of occupied habitat may be significant under CEQA.

Aquatic Resources

The Central Drain has an ordinary high water mark that is approximately 25 feet wide and defined by vegetation matting and a clear line impressed on the bank. The bank-to-bank width of the Central Drain is approximately 75 feet and about 6 feet in height. The Central Drain is classified as a riverine by the NWI (Attachment 7) but was not characterized as a wetland during the aquatic resources delineation. Since the Central Drain is a man-made excavated ditch used for agricultural purposes, excavated wholly in uplands to drain uplands, it would be exempt from USACE jurisdiction pursuant to Section 404 of the Clean Water Act. Due to the presence of an OHWM and surface flows, the Central Drain consists of approximately 0.68 acres of non-wetland waters of the State subject to RWQCB jurisdiction. In addition, the Central Drain exhibited a bed and bank and comprises approximately 1.87 acres of jurisdictional vegetated streambed under the jurisdiction of the CDFW under Section 1600 et seq. of California Fish and Game Code (CFGC). No associated riparian habitat was observed in association with the Central Drain. Refer to Attachment 8, *Aquatic Resources Delineation of State and Federal Jurisdictional Waters*, for the full methods and results of the aquatic resources delineation.

Habitat Conservation Plans

The project occurs within the boundaries of the IID Natural Community Conservation Plan (NCCP) and Habitat Conservation Plan (HCP); however, the County is not a signatory of this plan. The project may conflict with the NCCP/HCP; therefore, coordination with IID will be required to ensure the project does not conflict with the NCCP/HCP.

Recommendations

Since the Central Drain is a jurisdictional aquatic resource under the authority of the RWQCB and the CDFW, acquisition of a Waste Discharge Requirement from the RWQCB and a Section 1602 Streambed Alteration Agreement from the CDFW would be necessary prior to improvements within the canal.

The project must comply with the Migratory Bird Treaty Act and CFGC by avoiding impacts to birds and their active nests during the breeding season (February 1 through September 15). If bridge demolition and construction occurs during the bird breeding season, a qualified biologist will need to be retained to conduct a preconstruction nesting bird survey. The survey would occur three days prior to the start of bridge demolition. If an active nest is found, bridge demolition must not occur within 25 feet of the nest until nesting activity has ceased. Any time that construction activities cease for more than seven days, a new nesting bird survey must be conducted. This measure is expected to address special-status species that may be found nesting adjacent to site improvements (i.e., Yuma Ridgeway's Rail) and would avoid any indirect effects to these species.

Although there is no potential for special-status bats, the presence of a maternity colony or winter roosting bats would be protected under CFGC. To preclude any impacts to a maternity bat colony, a presence/absence bat survey is recommended during the maternity season the year prior to construction activities. A presence/absence survey would include two to three surveys from May to July to determine if the Meloland Road Bridge is occupied by bat species. Although a focused survey is not required for these species under CEQA, the CDFW may include this requirement in the permit conditions of the Streambed Alteration Agreement.

If a focused survey is not conducted, an outflight survey/preconstruction clearance survey would be required 30–60 days prior to construction of the project to determine if bats are roosting in the bridge. During construction, a biological monitor would inspect the bridge to determine occupation of bats. However, if bats are not found during the appropriate survey period, or bridge demolition occurs outside of the maternity season (March–September) and the winter season (November–February), no outflight or preconstruction clearance survey would be needed.

If a bat maternity colony is present, bat exclusion or eviction (i.e., one-way doors) would be incorporated into the bridge prior to demolition. No exclusion of bats can occur during the winter roosting season. Additional mitigation may be necessary, such as creation of bat habitat depending on the species and quantity present.

References

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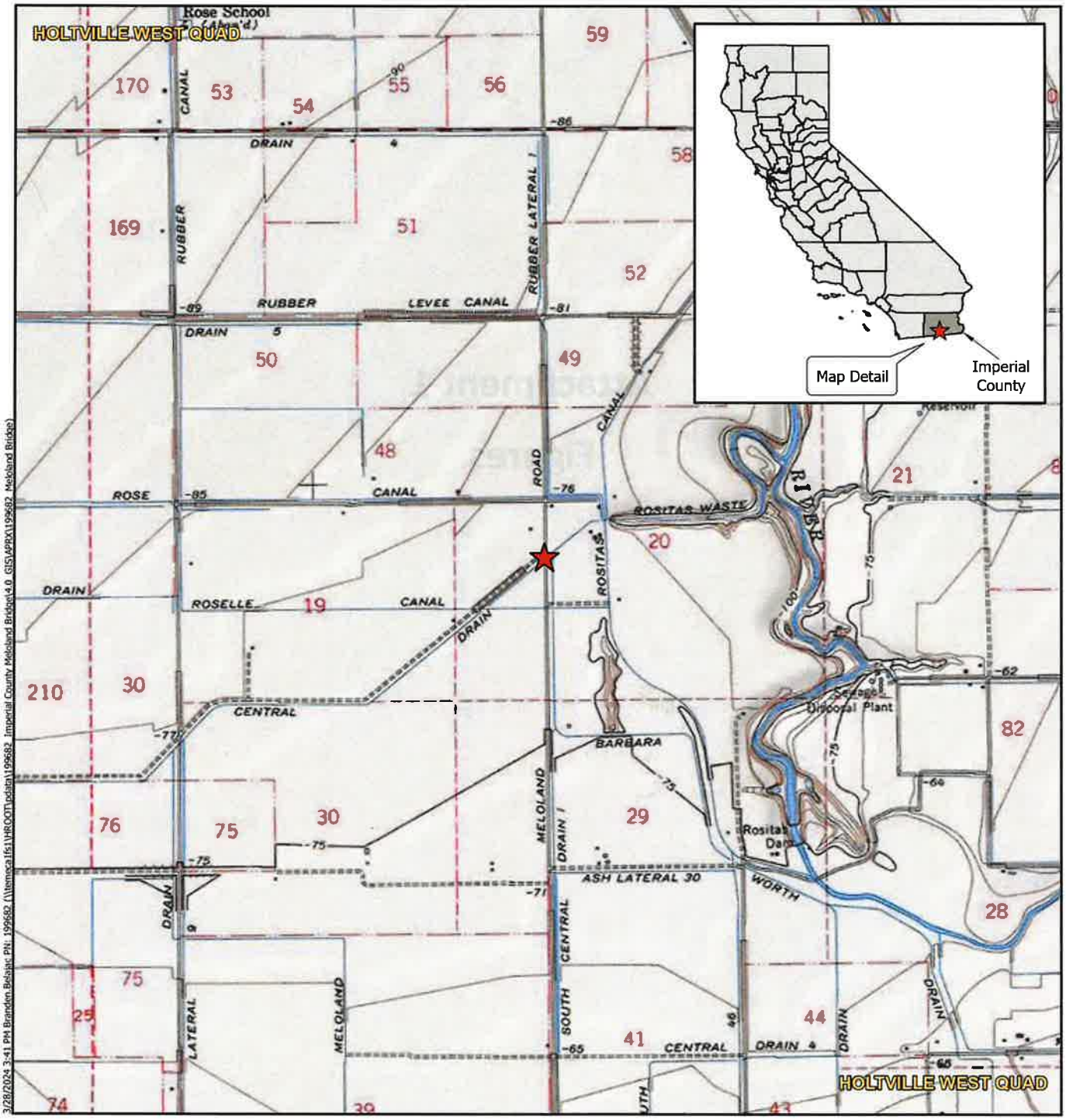
Attachment 1

Figures



3/28/2024 3:41 PM Brandon Belajac PW: 199682 (\\temecal\fs1\HROOT\data\199682_Imperial County Meloland Bridge\4.0 GIS\ArcPRX\199682_Meloland Bridge)

Legend

★ Project Site

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Vicinity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri USA Topo Maps, ArcGIS Online, Holtville West USGS 7.5-Minute topographic quadrangle map: *Holtville, California*

Figure 1

EEC ORIGINAL PKG

4/12/2024 8:40 AM Brandon.Belsky: P:\PN\199682 (Mexico)\fs1\VER(CO)\pdata\199682_Imperial County Meloland Bridge\4.0 GIS\APRX\199682_Meloland Bridge.aprx

Legend

- Pipe Design
- Project Site (3.72 ac)
- 100ft Buffer

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Michael Baker INTERNATIONAL

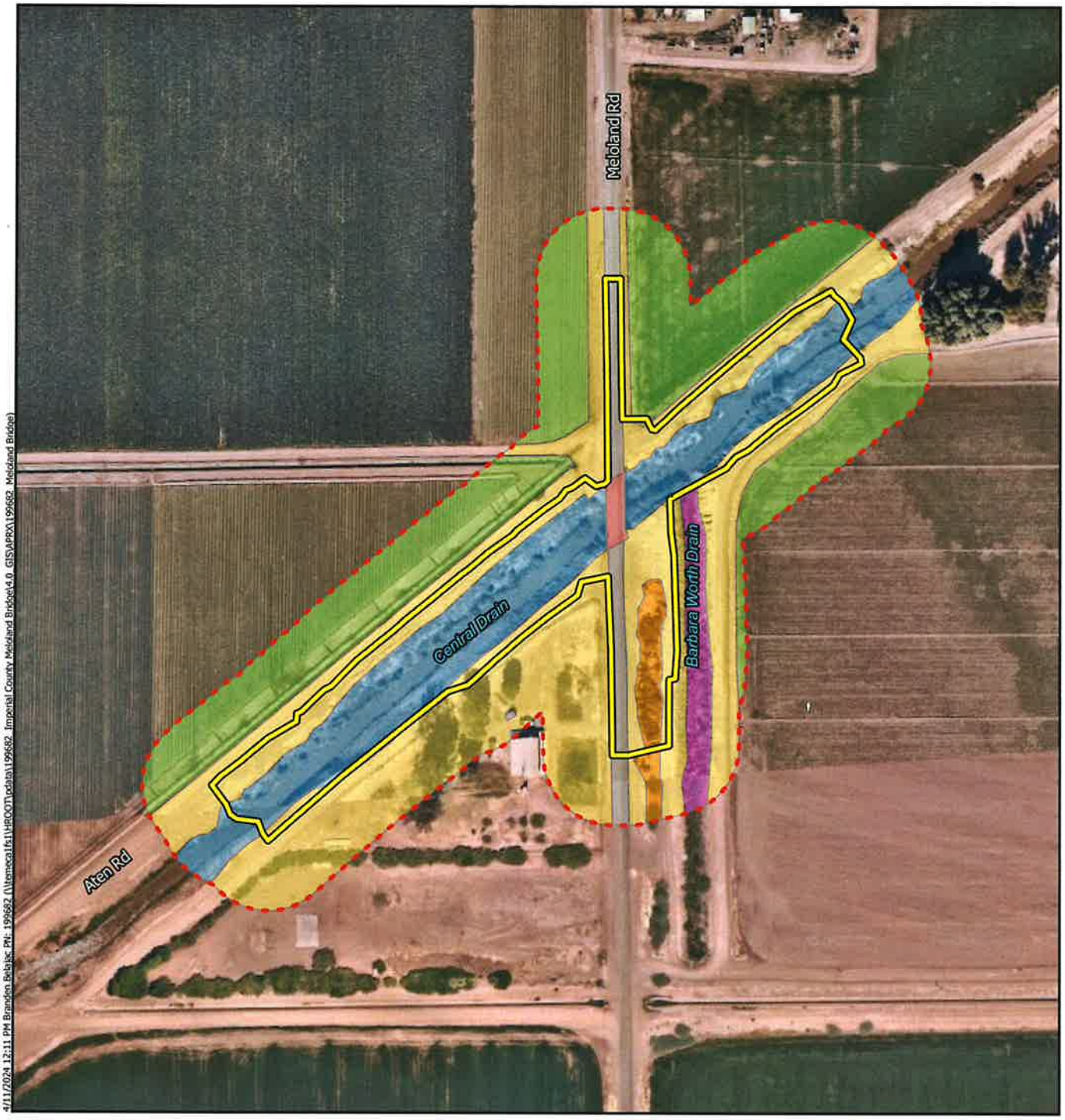
0 100 200 Feet

Source: 2023 Nearmap Imagery

Project Site

Figure 2

EEC ORIGINAL PKG



4/11/2024 12:11 PM Brandon Bebjak PN: 199682 (\\temecula1fs1\WBCOT\cdata\199682_Imperial County Meloland Bridge\4.0_GIS\APRX\199682_Meloland Bridge)

Legend

Project Site (3.72 ac)

100ft Buffer

Vegetation Communities

- Agriculture (3.61 ac)
- Arrow Weed Thickets/Open Water (2.23 ac)
- Arrow Weed Thickets/Open Water, Developed (0.06 ac)
- Cattail Marshes (0.34 ac)
- Developed (0.42 ac)
- Disturbed (5.24 ac)
- Quailbush Scrub (0.24 ac)

Michael Baker INTERNATIONAL

0 100 200 Feet

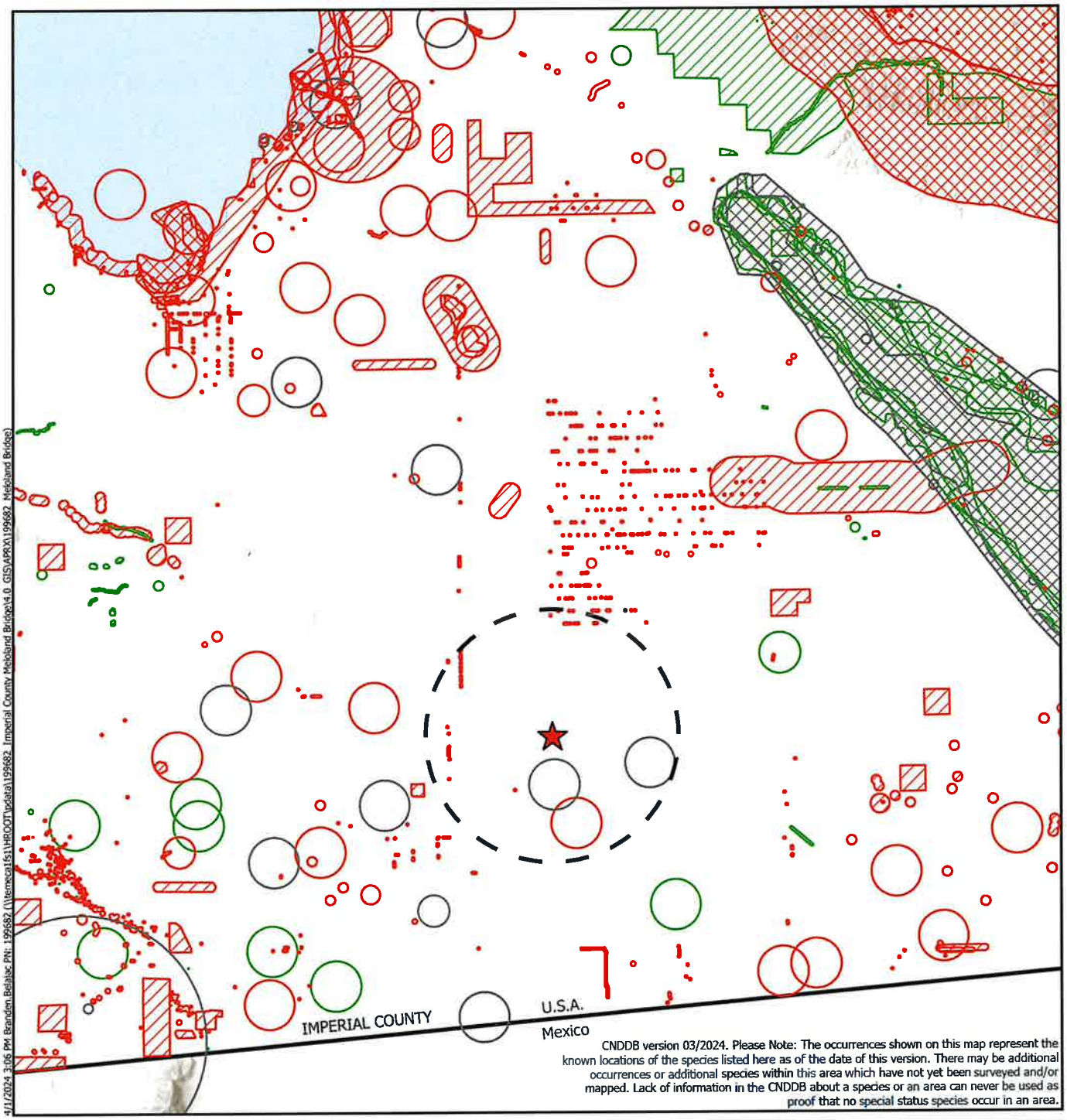
Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Vegetation Communities/Land Use

Figure 3

EEC ORIGINAL PKG



Legend

- Project Site
- 5 Mile Buffer
- Lake

California Natural Diversity Database

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)

Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: Esri World Hillshade, California Natural Diversity Database

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

CNDDB Results

Figure 4

EEC ORIGINAL PKG

Attachment 2

Site Photographs

Photograph 1: North-facing view from southern boundary of the project site.

Photograph 2. Northeast-facing view from under the east side of Meloland Bridge.

Photograph 3: Northwest-facing view from under Meloland Bridge.

Photograph 4: East-facing view of the project site from the northwestern boundary.

Photograph 5: Southwest-facing view from Meloland Bridge.

Photograph 6: West-facing view from northeastern portion of project site.

Attachment 3

California Natural Diversity Database

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Alamorio (3211584) OR El Centro (3211575) OR Holtville West (3211574) OR Heber (3211565) OR Calexico (3211564) OR Brawley (3211585) OR Holtville East (3211573) OR Bonds Corner (3211563) OR Holtville NE (3211583))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Abronia villosa var. aurita chaparral sand-verbena	G5T2? S2	None None	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	10 10	98 S:1	0	0	0	0	0	1	1	0	1	0	0
Anomala carlsoni Carlson's dune beetle	G1 S1	None None		100 100	24 S:1	0	0	0	0	0	1	1	0	1	0	0
Astragalus sabulonum gravel milk-vetch	G4G5 S2	None None	Rare Plant Rank - 2B.2		19 S:1	0	0	0	0	0	1	1	0	1	0	0
Athene cunicularia burrowing owl	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	-140 40	2017 S:154	15	1	11	2	0	125	14	140	154	0	0
Bombus crotchii Crotch bumble bee	G2 S2	None Candidate Endangered	IUCN_EN-Endangered	-120 -120	437 S:1	0	0	0	0	0	1	1	0	1	0	0
Buteo regalis ferruginous hawk	G4 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	-100 -40	107 S:2	0	0	0	0	0	2	2	0	2	0	0
Charadrius montanus mountain plover	G3 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFWS_BCC-Birds of Conservation Concern	-130 -130	90 S:1	0	0	0	0	0	1	0	1	1	0	0
Eumops perotis californicus western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	5 5	296 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Euphorbia abramsiana Abrams' spurge	G4 S2	None None	Rare Plant Rank - 2B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	-120 -2	109 S:4	0	0	0	0	1	3	4	0	3	1	0
Imperata brevifolia California satintail	G3 S3	None None	Rare Plant Rank - 2B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	10 10	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Incilius alvarius Sonoran Desert toad	G5 SH	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-45 -15	6 S:2	0	0	0	0	2	0	2	0	0	2	0
Kinosternon sonoriense Sonoran mud turtle	G3 SH	None None	CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	40 40	5 S:1	0	0	0	0	1	0	1	0	0	0	1
Lasiurus xanthinus western yellow bat	G4G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-120 10	58 S:7	0	0	0	0	0	7	7	0	7	0	0
Lithobates pipiens northern leopard frog	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-40 -40	19 S:1	0	0	0	0	0	1	1	0	1	0	0
Melanerpes uropygialis Gila woodpecker	G5 S2	None Endangered	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	-120 -104	62 S:2	0	0	0	1	0	1	2	0	2	0	0
Mentzelia hirsutissima hairy stickleaf	G4? S3	None None	Rare Plant Rank - 2B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture	-20 -20	28 S:1	0	0	0	0	0	1	1	0	1	0	0
Neotoma albigula venusta Colorado Valley woodrat	G5T3T4 S1S2	None None		-21 -21	22 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Nyctinomops femorosaccus pocketed free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	5 5	90 S:1	0	0	0	0	0	1	1	0	1	0	0
Nyctinomops macrotis big free-tailed bat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-40 -40	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Palafoxia arida var. gigantea giant spanish-needle	G5T3? S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	70 70	6 S:1	0	0	0	0	0	1	1	0	1	0	0
Pholisma sonorae sand food	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	0 25	14 S:3	0	0	0	0	0	3	3	0	3	0	0
Phrynosoma mcallii flat-tailed horned lizard	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	-110 100	340 S:6	0	0	0	0	4	2	5	1	2	4	0
Pyrocephalus rubinus vermilion flycatcher	G5 S2S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-21 -21	25 S:1	0	0	0	0	0	1	1	0	1	0	0
Rallus obsoletus yumanensis Yuma Ridgway's rail	G3T3 S1	Endangered Threatened	CDFW_FP-Fully Protected	-15 100	58 S:4	0	0	1	0	0	3	4	0	4	0	0
Setophaga petechia yellow warbler	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	10 10	78 S:1	0	0	0	0	0	1	1	0	1	0	0
Sigmodon hispidus eremicus Yuma hispid cotton rat	G5T2T3 S2	None None	CDFW_SSC-Species of Special Concern	-50 85	23 S:3	0	0	0	0	0	3	0	3	3	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-21 0	645 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Toxostoma crissale Crissal thrasher	G5 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	-120 -120	67 S:1	0	0	0	0	0	1	1	0	1	0	0

Attachment 4

California Native Plant Society

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

11 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3211583:3211563:3211573:3211585:3211564:3211565:3211574:3211575:3211584]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01	 © 2011 Aaron E. Sims
Amaranthus watsonii	Watson's amaranth	Amaranthaceae	annual herb	Apr-Sep	None	None	G5?	S3	4.3		2001 01 01	 © 2003 Debra Valov
Astragalus sabulonum	gravel milk-vetch	Fabaceae	annual/perennial herb	Feb-Jun	None	None	G4G5	S2	2B.2		2011-10-19	No Photo Available
Euphorbia abramsiana	Abrams' spurge	Euphorbiaceae	annual herb	(Aug)Sep-Nov	None	None	G4	S2	2B.2		2001 01 01	No Photo Available
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G3	S3	2B.1		2006-12-26	 © 2020 Matt C. Berger
Johnstonella costata	ribbed cryptantha	Boraginaceae	annual herb	Feb-May	None	None	G4G5	S4	4.3		1974-01-01	No Photo Available
Johnstonella holoptera	winged cryptantha	Boraginaceae	annual herb	Mar-Apr	None	None	G4G5	S4	4.3		1980-01 01	No Photo Available
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2		1988-01-01	 © 2019 Belinda Lo
Mentzelia hirsutissima	hairy stickleaf	Loasaceae	annual herb	Mar-May	None	None	G4?	S3	2B.3		1974-01-01	No Photo Available

Palafoxia arida var. *gigantea*	giant spanish-needle	Asteraceae	annual/perennial herb	Feb-May	None	None	G5T3?	S2	1B.3	1974-01-01	No Photo Available
Pholisma sonorae	sand food	Lennoaceae	perennial herb (parasitic)	(Mar)Apr-Jun	None	None	G2	S2	1B.2	1974-01-01	No Photo Available

Showing 1 to 11 of 11 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 16 February 2024].

Attachment 5

U.S. Fish and Wildlife IPac Species List

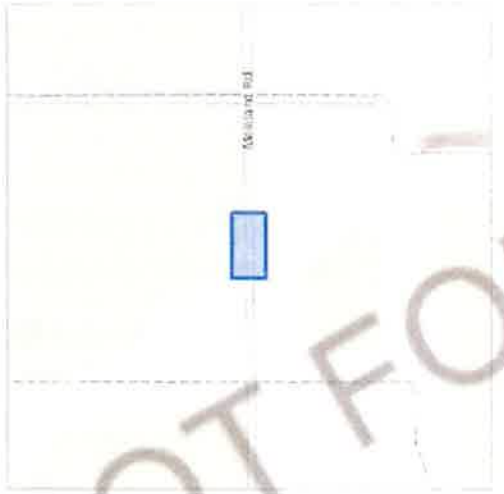
IPaC resource list

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

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:

Birds

NAME	STATUS
Yuma Ridgway's Rail Rallus obsoletus yumanensis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3505	Endangered

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[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[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/ documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the

general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Gila Woodpecker Melanerpes uropygialis This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/5960	Breeds Apr 1 to Aug 31
Marbled Godwit Limosa fedoa This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▩)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

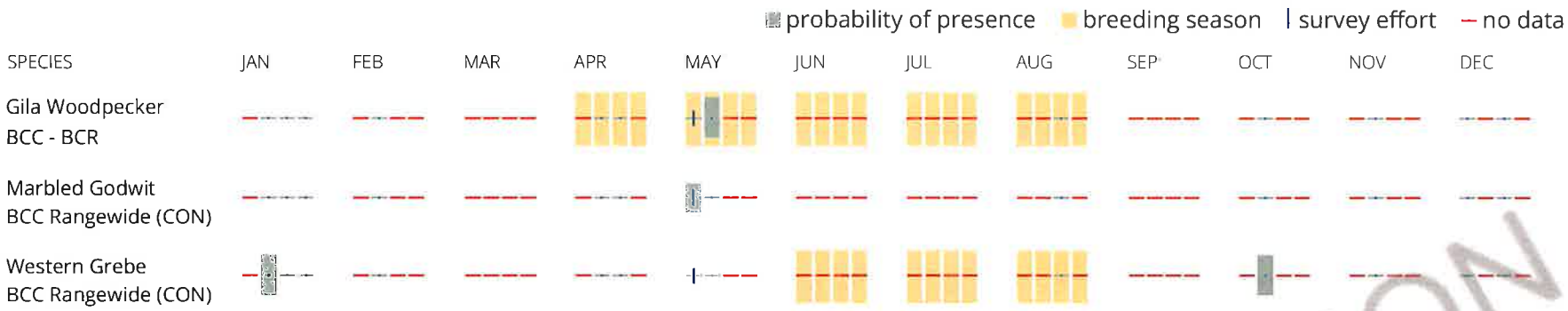
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R2UBHx

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

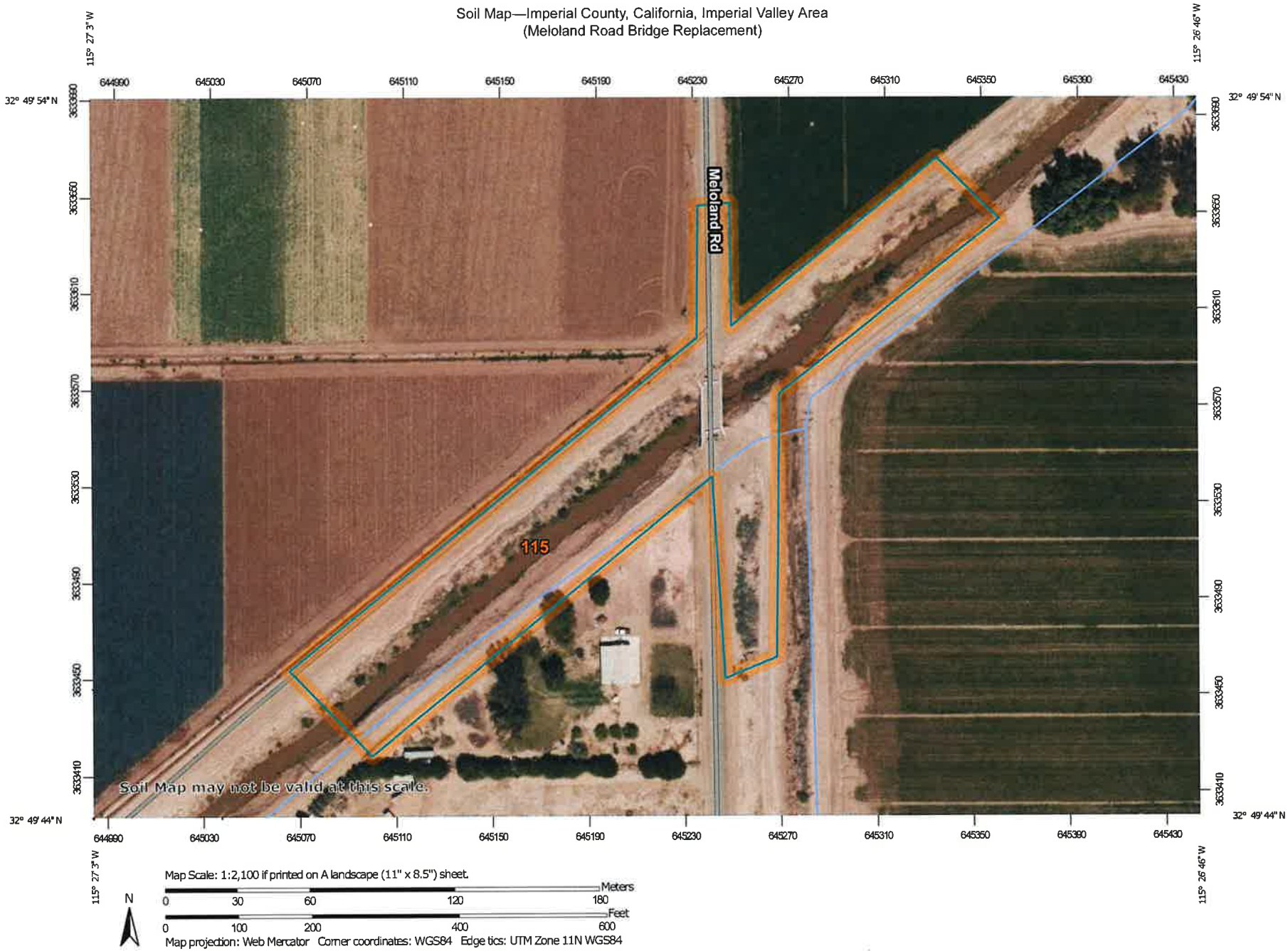
Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment 6

Soil Resource Report for Imperial County, California Imperial Valley Area

Soil Map—Imperial County, California, Imperial Valley Area
(Meloland Road Bridge Replacement)



USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Imperial County, California, Imperial Valley Area
Survey Area Data: Version 15, Aug 30, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2021—May 22, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
115	Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes	4.5	100.0%
Totals for Area of Interest		**4.5**	**100.0%**

Attachment 7

National Wetlands Inventory

U.S. Fish and Wildlife Service

National Wetlands Inventory

Imperial County Meloland Bridge Project

February 16, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

EEC ORIGINAL PKG

Attachment 8

Aquatic Resources Jurisdictional Delineation

Michael Baker
INTERNATIONAL

We Make a Difference

April 29, 2024

JN 199682

IMPERIAL COUNTY PUBLIC WORKS DEPARTMENT
Attn: Frank J. Fiorenza, PE
155 South 11th Street
El Centro, California 92243

SUBJECT: Aquatic Resources Delineation of State and Federal Jurisdictional Waters for the proposed Meloland Bridge Replacement Project – Imperial County, California

Dear Mr. Fiorenza:

Michael Baker International has prepared this report to document the results of a literature review and formal delineation of State and federal jurisdictional waters, including wetlands, that were conducted for the proposed Meloland Bridge Replacement Project (project or project site) located in unincorporated Imperial County, California. Specifically, the delineation was conducted to identify and document the extent of aquatic and other hydrologic features within the project site that potentially fall under the jurisdictional authority of the US Army Corps of Engineers (USACE), the Colorado River Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). This report summarizes the methodology used throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by Michael Baker. This report presents Michael Baker's determination of jurisdictional boundaries based on the most current regulations, written policy, and guidance approved by the regulatory agencies. However, please note that only the regulatory agencies can make a final determination of jurisdictional limits.

PROJECT LOCATION

The 12.14-acre project site is located in Imperial County within portions of Sections 19 and 20 of Township 15 South Range 15 East on the US Geological Survey's (USGS) *Holtville West, California* 7.5-minute quadrangle (USGS n.d.-b). The existing bridge (Bridge No. 58C-0155) is located on Meloland Road over the Central Drain, approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the city of Holtville, California. Meloland Road is a north–south major collector road and serves both the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road; it also provides connectivity to the cities of Imperial and north El Centro. Refer to Figure 1, *Project Vicinity* and Figure 2, *Project Site*.

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PROJECT DESCRIPTION

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over the Central Drain with a pipe crossing. The primary objective of the project is to provide a safe, reliable crossing for the public that meets all current design standards. The purpose of the project is to replace the existing, 1940s-built, structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards and ensure drain flow is not impeded. The bridge was closed intermittently to traffic in 2016 due to bridge inspection and remedial work, with a permanent closure instituted in 2022. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District. This drain, which serves the agricultural community, is also the main drain that serves the El Centro urban area, which then discharges to the Alamo River, located approximately 8 miles east of El Centro.

STATE AND FEDERAL REGULATIONS

Three key agencies regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The USACE regulates activities that result in the discharge of dredged or fill material into waters of the U.S. (WoUS), including wetlands, pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the State Water Resources Control Board (SWRCB) and its nine districts, including the Colorado River RWQCB, regulate discharges to waters of the State (WoS), including wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act, and State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and the CDFW regulates alterations to lakes, streambeds, and associated riparian habitats pursuant to Section 1600 et seq. of the California Fish and Game Code (CFGC).

LITERATURE REVIEW

Prior to conducting the field delineation, Michael Baker reviewed relevant literature and materials to obtain a general understanding of the environmental setting and preliminarily identify features/areas within the project site that may fall under the jurisdiction of the regulatory agencies. Refer to the subsections below for a summary of relevant materials, databases, technical reports, and guidance documents that were obtained/reviewed by Michael Baker. In addition, a complete list of references is provided as Attachment G to this report.

Salton Sea Watershed

The project site is located within the Salton Sea Watershed (HUC 18100200). The project site is approximately 0.25 miles west of the Alamo River, which is a tributary to the Salton Sea. The Salton Sea watershed comprises approximately 8,360 square miles in Imperial County. The watershed is composed of four main components, the New River, Alamo River, Imperial Valley Agricultural Drains, and Coachella Valley Stormwater Channel, all of which ultimately connect to the Salton Sea. The Alamo River is not a Designated River under the National Wild and Scenic Rivers Act.

Soils

According to the *Custom Soil Resources Report for Imperial County, California, Imperial Valley Area* (US Department of Agriculture [USDA] n.d.-a), the project site is underlain by one soil map unit: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115). Michael Baker also reviewed the *Hydric Soils List for California* (USDA n.d.-b) to preliminarily verify whether the soil map units listed above were classified as a "hydric soil" in the Salton Sea area. According to the list, the subject soil map units are not listed as hydric.

National Wetlands Inventory

Based on a review of the US Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) (USFWS n.d.), one riverine resource mapped in the NWI coincides with the project site, which is shown in Attachment B. The mapped riverine feature within the project site (Central Drain) flows to the northeast and discharges into the Rositas Waste Drain approximately 900 feet downstream of the project site. This feature is described as riverine lower perennial unconsolidated bottom permanently flooded excavated (R2UBHx).

Flood Zone

Based on a review of the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer (FEMA n.d.), the project site is located within Flood Insurance Rate Map Panel Number 06025C1750C. The project site occurs within Zone X as shown in Attachment C. Zone X is described as an area of minimal flood hazard.

National Hydrography Dataset

Based on a review of the National Hydrography Dataset Advanced Viewer (USGS n.d.-a), two canals/ditches are mapped within the project site, as shown in Attachment D. These features flow in a north/northeast direction, eventually flowing into the Alamo River.

FIELD METHODOLOGY

Michael Baker wetland delineators Stephen Anderson and Samantha Martinez conducted a jurisdictional delineation/field survey of the project site on March 26, 2024, using the most recent, agency-approved methodology, to identify and map the extent of State and federal jurisdictional features (i.e., wetland and non-wetland WoUS, WoS, streambed, and associated riparian vegetation). Based on the project's location, potential State and federal wetlands were delineated in accordance with the methods and guidance provided in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (USACE 2008), and the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019).

While in the field, jurisdictional features were recorded on an aerial photograph at a scale of 1" = 400' using topographic contours and visible landmarks as guidelines. Data points were recorded in the field using a Garmin GPS Map 64sx to identify specific widths and length of jurisdictional features and the location of any ordinary high-water mark (OHWM) indicators, photograph points, soil pits, and other pertinent site characteristics. These data were then uploaded as a .shp file and confirmed/refined to ensure accuracy and consistency with hard copy notes and aerial mapping completed in the field. Michael Baker then used Esri ArcGIS Pro software to calculate the total acreage of jurisdictional features and prepare final project figures.

RESULTS

Non-Wetland Features

One perennial drainage feature was identified within the project site during the March 2024 site visit. A small portion of the confluence with the Barbara Worth Drain is also included within the project site (refer to Attachment E, *Site Photographs*).

Central Drain

The Central Drain is an earthen perennial channel that begins at the southwest end of the project site and flows in a northeasterly direction through to the northeastern end of the project site. The Central Drain flows northeast outside of the project site, eventually flowing into the Rositas Waste Drain approximately 900 feet downstream, and subsequently into the Alamo River roughly 0.25 miles from the project site. At the time of the survey, the Central Drain contained flowing water through the project site. The banks of the Central Drain are vegetated similarly to the immediate upstream and downstream portions outside of the project site and are dominated by common reed (*Phragmites australis*; FACW), arrow weed (*Pluchea sericea*; FACW), Bermuda grass (*Cynodon dactylon*; FACU), tamarisk (*Tamarix ramosissima*; UPL), and western sea purslane (*Sesuvium verrucosum*; FACW).[1] An OHWM is present within the Central Drain that is approximately 25 feet wide and defined by vegetation matting and a clear line impressed on the bank. The bank-to-bank width of the Central Drain is approximately 75 feet and about 6 feet height. No associated riparian vegetation was observed outside of the banks of the Central Drain.

Wetland Features

Two soil pits were dug within the Central Drain to determine if wetland conditions are present. Although wetland hydrology and hydrophytic vegetation were present within the Central Drain, wetland soils were not. Therefore, no wetlands are present within the project site (refer to Attachment F, *Soil Pit Data Forms*).

FINDINGS

The Central Drain is a tributary to the Alamo River, and subsequently the Salton Sea. This feature is a perennial feature based on historical aerial imagery, which shows surface flows present year-round and the

1 FACW: Facultative Wet; FACU: Facultative Upland; UPL: Obligate Upland

NWI classification as a perennial feature; exhibits relatively permanent flow; and exhibits a continuous surface connection to a downstream traditional navigable water (TNW). However, this feature is a man-made excavated ditch used for agricultural purposes, excavated wholly in uplands to drain uplands, and would therefore be exempt from USACE jurisdiction pursuant to Section 404 of the Clean Water Act.

Due to the presence of an OHWM and surface flows, the Central Drain is subject to RWQCB jurisdiction. The jurisdiction of the RWQCB totals approximately 0.68 acres (1,456 linear feet) of non-wetland WoS. In addition, the Central Drain exhibited a bed and bank and is therefore considered under the jurisdiction of the CDFW under Section 1600 et.seq. of CFGC; the on-site portion of the Central Drain comprises approximately 1.87 acres (1,456 linear feet) of jurisdictional vegetated streambed. No associated riparian habitat was observed in association with the Central Drain. Refer to Table 2 below and Figures 3 and 4 provided in Attachment A.

Table 2: State and Federal Jurisdictional Resources

Feature Name	Location Lat/Long	Cowardin Type	Linear Feet	Acreage within Project Site			
				RWQCB		CDFW	
				Non-Wetland WoS	Wetland WoS	Vegetated Streambed	Associated Riparian
Central Drain	32.830297°/ -115.448589°	Riverine	1,456	0.68	--	1.87	--
TOTAL			**1,456**	**0.68**	--	**1.87**	--

CONCLUSIONS AND RECOMMENDATIONS

The USACE regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Although evidence of an OHWM was noted within the aquatic feature at the project site, the feature exhibits a perennial flow regime and a continuous surface connection to a downstream TNW. This feature is a man-made excavated ditch in an agricultural area and would therefore not be subject to USACE jurisdiction under Section 404. Therefore, there is no USACE jurisdiction within the project site and no Section 404 permit is required prior to commencement of construction activities.

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Act. Temporary and/or permanent impacts resulting from the proposed project would require Water Discharge Requirements from the RWQCB pursuant to the Porter-Cologne Act prior to the commencement of construction activities. The RWQCB also requires that California Environmental Quality Act (CEQA) compliance be obtained prior to obtaining authorization. An application fee is required with the application package and is calculated based on the acreage of jurisdictional impacts.

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 et seq. of the CFGC. Therefore, formal notification to and subsequent authorization from the CDFW would be required prior to commencement of any construction activities within the CDFW jurisdictional areas. The

CDFW also requires that CEQA compliance be obtained prior to issuing the final Lake and Streambed Alteration Agreement. In addition, a notification fee is required, which is calculated based on project costs within CDFW jurisdictional areas.

Please do not hesitate to contact me at (949) 330-4147 or stephen.anderson@mbakerintl.com should you have any questions or require further information.

Sincerely,

Stephen Anderson

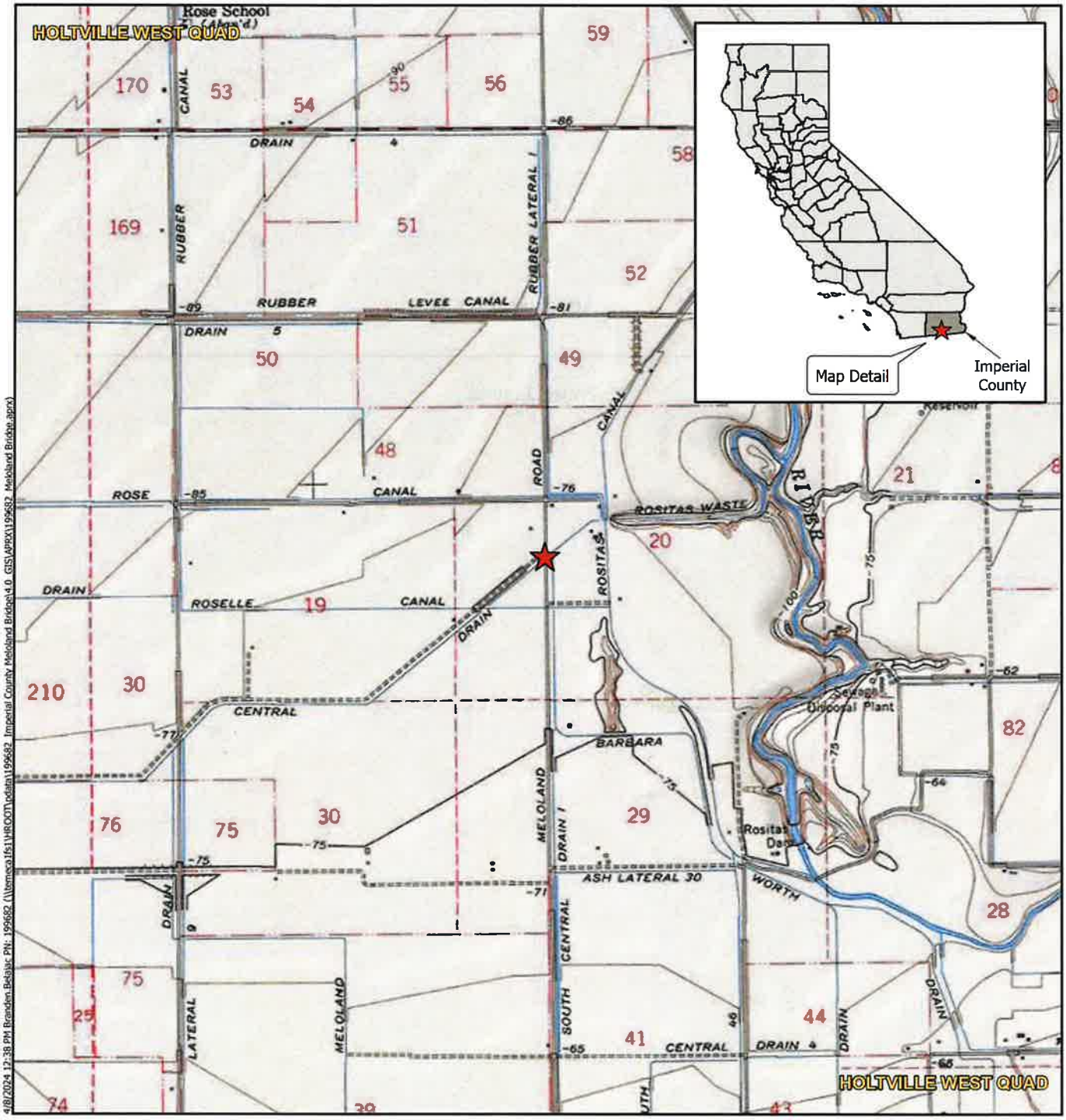
Stephen Anderson
Senior Biologist
Natural Resources & Environmental Services

Attachments:

A. Project Figures
B. USFWS National Wetlands Inventory Map
C. FEMA Flood Insurance Rate Map
D. USGS National Hydrography Dataset Advanced Viewer Map
E. Site Photographs
F. Soil Pit Data Forms
G. References

Attachment A

Project Figures



4/8/2024 12:38 PM Branden.Belajac PW: 199682 (\\temeco\fs1\WROOT\jobs\199682_Imperial County Meloland Bridge\4.0_GIS\APRX\199682_Meloland Bridge.aprx)

Legend

★ Project Site

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Vicinity

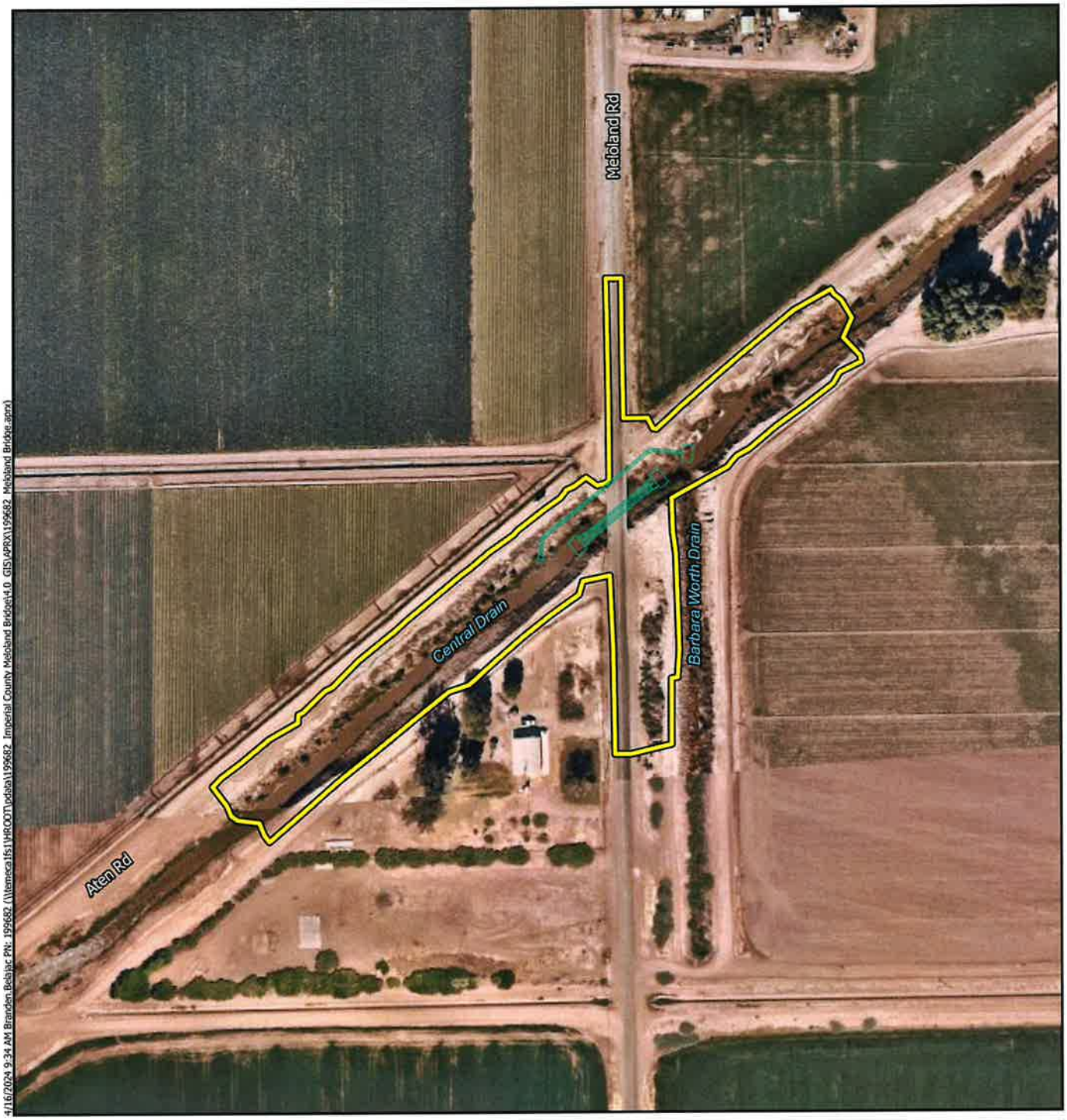
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri USA Topo Maps, ArcGIS Online, Holtville West USGS 7.5-Minute topographic quadrangle map: *Holtville, California*

Figure 1

EEC ORIGINAL PKG



4/16/2024 9:34 AM Branden.Belajac PN: 199682 (\\temeca1fs1\HR\COT\data\199682_Imperial County Meloland Bridge\v4.0_GIS\APRX\199682_Meloland Bridge.aprx)

Legend

- Pipe Design
- Project Site (3.72 ac)

Michael Baker INTERNATIONAL

0 100 200 Feet

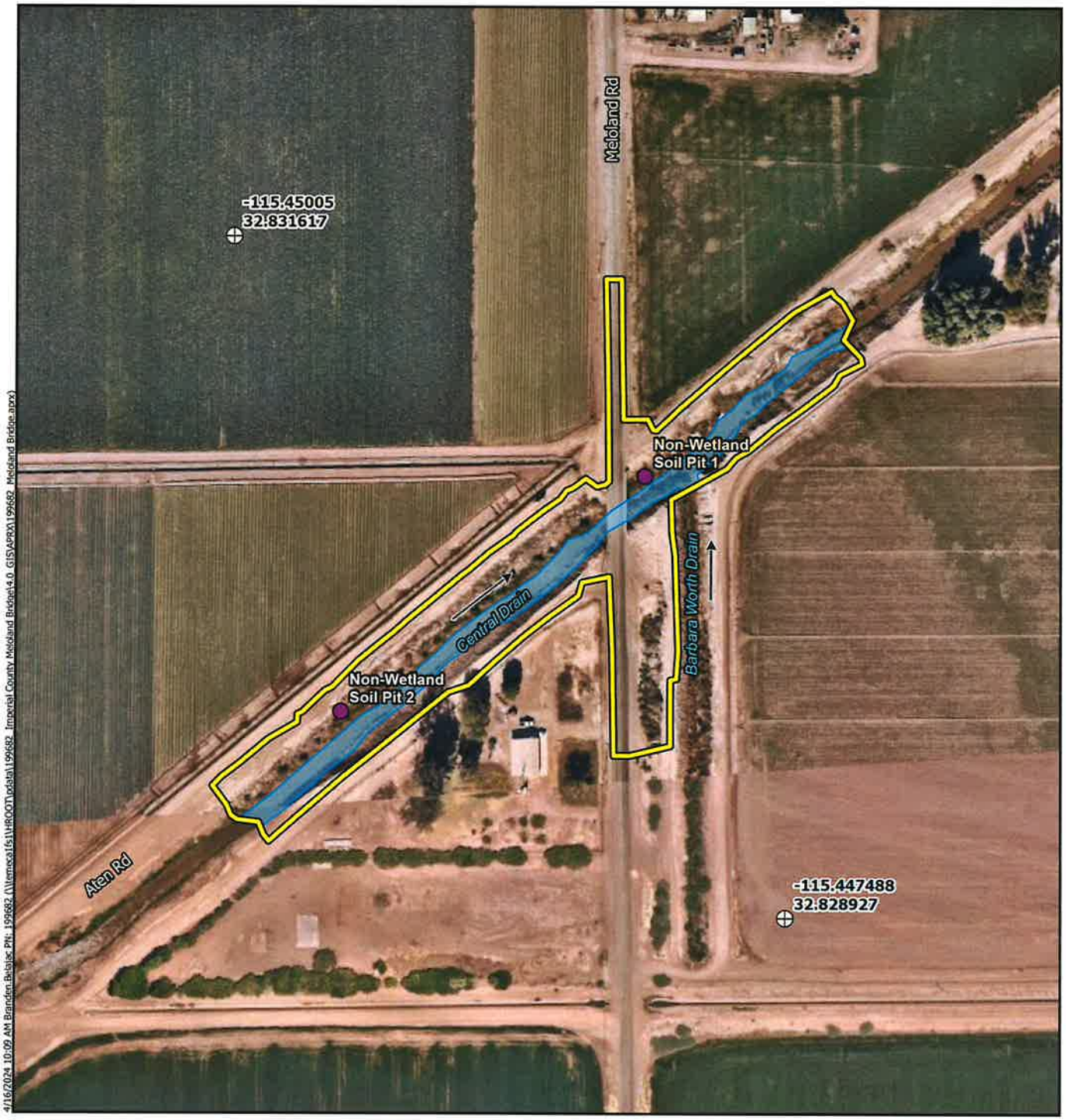
Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Site

Figure 2

EEC ORIGINAL PKG



4/16/2024 10:09 AM Brandon.Bebjak PN: 199682 (\\lemoas1fs1\HROOT\Jobs\199682_Imperial County Meloland Bridge\4.0 GIS\APRX\199682_Meloland Bridge.aprx)

Legend

- Site Location
- Soil Pits
- Flow Direction
- Project Site
- RWQCB Non-Wetland Waters of the State (0.68 ac)

Michael Baker INTERNATIONAL

0 100 200 Feet

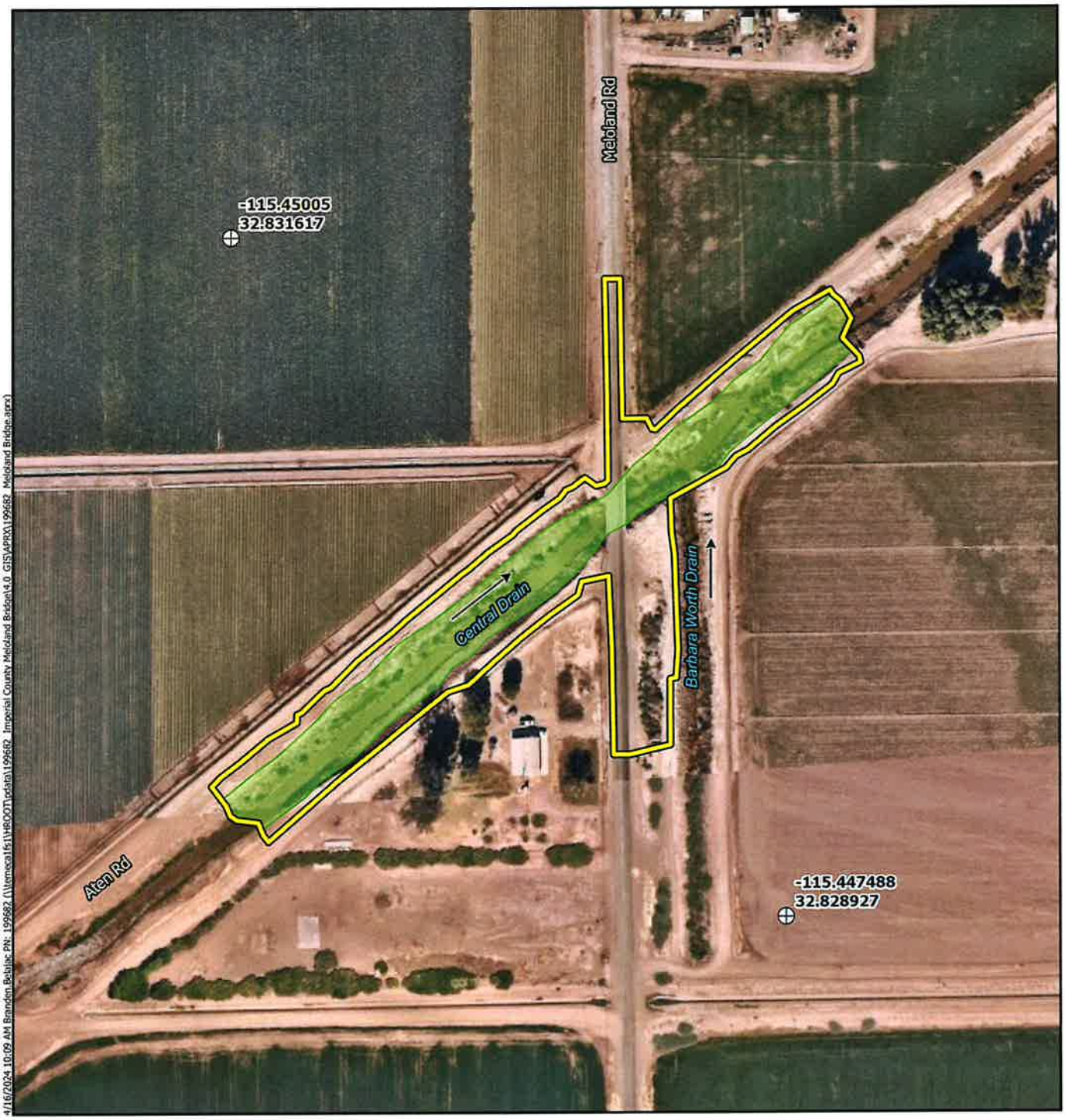
Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

RWQCB Jurisdictional Map

Figure 3

EEC ORIGINAL PKG



4/16/2024 10:09 AM Brandon Belsio PN: 199682 (\\vmecoa1fs1\WBG\OT\jobdata\199682_Imperial County Meloland Bridge\4.0 GIS\APRX\199682_Meloland Bridge.aprx)

Legend

- ⊕ Site Location
- Project Site
- → Flow Direction
- CDFW Streambed (1.87 ac)

Michael Baker INTERNATIONAL

0 100 200 Feet

Source: 2023 Nearmap Imagery

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

CDFW Jurisdictional Map

Figure 4

EEC ORIGINAL PKG

Attachment B

USFWS National Wetlands Inventory Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

Imperial County Meloland Bridge Project

February 16, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

EEC ORIGINAL PKG

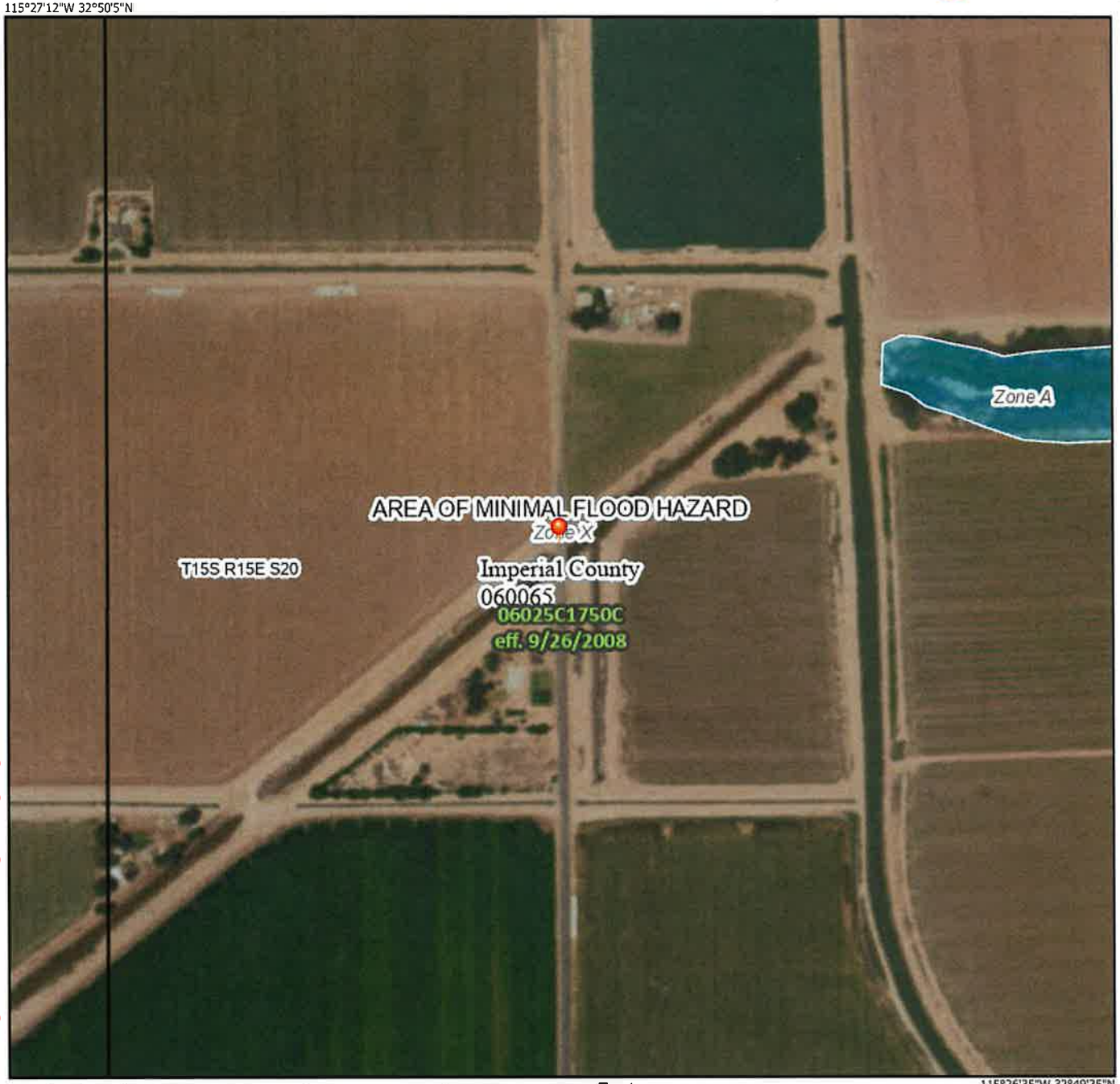
Attachment C

FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette

FEMA

115°27'12"W 32°50'5"N



115°26'35"W 32°49'35"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

EEC ORIGINAL PKG

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/25/2024 at 2:10 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment D

USGS National Hydrography Dataset Advanced Viewer Map

Meloland Bridge Replacement Project

4/8/2024

Flowlines

Non-Network

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

1.2m Resolution Metadata

1:4,183

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.19 km

Maxar

EEC ORIGINAL PKG

Attachment E

Site Photographs

Photograph 1: Downstream view of Central Drain from Meloland Road Bridge, facing E.

Photograph 2: Upstream view of Central Drain from Meloland Road Bridge, facing SW.

Photograph 3: Upstream view of the western boundary of Central Drain, facing SW.

Photograph 4: Downstream representative view of Barbara Worth Drain adjacent to the project site, facing N.

EEC ORIGINAL PKG

Attachment F

Soil Pit Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Meloland Bridge City/County: Imperial County Sampling Date: 3/26/24

Applicant/Owner: Imperial County Public Works Department State: CA Sampling Point: 1

Investigator(s): Stephen Anderson, Samantha Martinez Section, Township, Range: S 19 and 20, T 15 S, R 15 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): Arid West Lat: 32°49'50.42"N Long: 115°26'53.32"W Datum: WGS 1984

Soil Map Unit Name: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115) NWI classification: R2UBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Phragmites australis	15	Yes	FACW
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 15' radius)			
1. Cynodon dactylon	35	Yes	FACU
2. Sesuvium verrucosum	10	Yes	FACW
3. Heliotropium curassavicum	5	No	FACU
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 4/3	100					Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No _____ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Meloland Bridge City/County: Imperial County Sampling Date: 3/26/24

Applicant/Owner: Imperial County Public Works Department State: CA Sampling Point: 2

Investigator(s): Stephen Anderson, Samantha Martinez Section, Township, Range: S 19 and 20, T 15 S, R 15 E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): Arid West Lat: 32°49'47.12"N Long: 115°26'58.47"W Datum: WGS 1984

Soil Map Unit Name: Imperial-Glenbar silty clay loams, wet, 0 to 2 percent slopes (115) NWI classification: R2UBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____ No ✓	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Pluchea sericea	25	Yes	FACW
2. Tamarix ramosissima	10	Yes	UPL
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 15' radius)			
1. Cynodon dactylon	20	Yes	FACU
2. Heliotropium curassavicum	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	25	x 2 =	50
FAC species	_____	x 3 =	_____
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	65 (A)		220 (B)

Prevalence Index = B/A = 3.38

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/3	100					Silty clay	
10-16	7.5YR 4/3	99	10R 4/6	1	C	PL	Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ✓ Water Marks (B1) (**Riverine**)
- ✓ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): _____

Water Table Present? Yes ___ No ✓ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): _____

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Attachment G

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Appendix D – Cultural Resources Identification Memorandum

Michael Baker
INTERNATIONAL

We Make a Difference

April 29, 2024

Mr. Frank J. Fiorenza, PE
Resident Engineer II
Imperial County Public Works Department
155 South 11th Street
El Centro, Ca 92243

RE: CULTURAL RESOURCES IDENTIFICATION MEMORANDUM FOR THE MELOLAND ROAD AT CENTRAL DRAIN BRIDGE REPLACEMENT PROJECT, IMPERIAL COUNTY CALIFORNIA

Dear Mr. Fiorenza

In support of the Meloland Road at Central Drain Bridge Replacement Project (project), Michael Baker International completed a South Coastal Information Center (SCIC) records search, literature, and historical map review, Native American Heritage Commission (NAHC) Sacred Lands File search, field survey, California Register of Historical Resources evaluations, and buried archaeological site sensitivity analysis to determine if the project area contains historical resources, as defined in California Environmental Quality Act (CEQA) Guidelines Section 15064.5(a), that may be impacted by the project. The project is subject to CEQA review; Imperial County is the lead agency. Methods, results, and recommendations are summarized below.

PROJECT DESCRIPTION

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over the Central Drain with a pipe crossing. The primary objective of the project is to provide a safe, reliable crossing for the public that meets all current design standards. The purpose of the project is to replace the existing, 1940s-built, structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards and ensure drain flow is not impeded. The bridge was closed intermittently to traffic in 2016 due to bridge inspection and remedial work, with a permanent closure instituted in 2022. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District. This drain, which serves the agricultural community, is also the main drain that serves the El Centro urban area, which then discharges to the Alamo River, located approximately 8 miles east of El Centro.

PROJECT LOCATION

The project site is located in Imperial County within portions of Sections 19 and 20 of Township 15 South Range 15 East, *Holtville West, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle map. The existing bridge is located on Meloland Road over the Central Drain, approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the City of Holtville, California. Meloland Road is a north–south major collector road that serves both the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road; it also provides connectivity to the Cities of Imperial and North El Centro.

The project area includes the maximum extent of ground disturbance and project activities associated with demolition, site preparation, and construction of the bridge (see **Attachment 1**).

CULTURAL RESOURCES IDENTIFICATION METHODS

The methods and results of the SCIC records search, literature and historical map search, NAHC Sacred Lands File search, built environment field survey, California Register evaluation, and buried archaeological site sensitivity analysis are presented below.

SOUTH COASTAL INFORMATION CENTER

Michael Baker International staff requested a records search of the project area and half-mile search radius at the SCIC (RSID-3590) on March 4, 2024 (see **Attachment 2**). The SCIC, as part of the California Historical Resources Information System, California State University, San Diego, an affiliate of the California Office of Historic Preservation (OHP), is the official state repository of cultural resources records and reports for Imperial County. As part of the records search, the following federal and California inventories were reviewed:

- Archaeological Determinations of Eligibility (OHP 2024). The directory includes determinations for eligibility for archaeological resources in Imperial County.
- California Inventory of Historic Resources (OHP 2024a).
- California Points of Historical Interest (OHP 2024b).
- California Historical Landmarks (OHP 2024c).
- Built Environment Resources Directory (BERD) (OHP 2024d). The directory includes resources evaluated for listing and listed in the National Register of Historic Places, National Historic Landmarks, California Register, California Historical Landmarks, and California Points of Historical Interest in Imperial County.

Results

The records search results indicated no previous cultural resource studies had been conducted within the project area or the half-mile search radius. No cultural resources are documented within the project area, and one historic period resource, the Redwood Canal, has been recorded within the half-mile search radius (**Table 1**). No built environment resources within the project area or within the half-mile search radius were identified in the BERD.

Table 1: Cultural Resources Within a 0.5 Mile Radius of the Project Area

Primary No.	Trinomial	DPR Form Recorder and Updates	Description
P-13-012159	CA-IMP-010842	2010 (Micah Hale, Don Laylander, ASM Affiliates)	The Redwood Canal

LITERATURE AND HISTORICAL MAP REVIEW

Michael Baker International staff reviewed literature and historical maps for historical information about the project area and the vicinity. Below is a list of resources reviewed, followed by a narrative description of the results.

Historical Maps And Historical Aerial Photographs

- *Township 15 South, Range 15 East, San Bernardino Meridian Plat maps* (BLM 1856, 1908)
- *Holtville, California*, 1:25,000 topographic map (USGS 1905)
- *Alamorio, California*, 1:62,500 topographic map (USGS 1940)

- *El Centro, California*, 1:62,500 topographic map (USGS 1942)
- *Alamorio, California*, 1:62,500 topographic map (USGS 1945)
- *Holtville West, California*, 1:24,000 topographic map (USGS 1956)
- *Holtville, California*, 1:62,500 topographic map (USGS 1957)
- *Holtville, California*, 1:24,000 topographic map (USGS 1968)
- *Holtville West, California*, 1:24,000 topographic map (USGS 1979)
- NETR (Nationwide Environmental Title Research, LLC). 2024. Aerial photographs of project area and vicinity.

Historical Databases

- Ancestry.com (2024)
- Newspapers.com (2024)
- Google (2024)
- Google Earth (2024)

Literature

- "Tipai and Ipai." *California.* Handbook of the North American Indians (Luomala 1978)
- *California Prehistory: Colonization, Culture, and Complexity* (Jones and Klar 2007)
- *California Archaeology* (Moratto 1984)

Results

Environmental Setting

The project is in Imperial County in the Colorado Desert, an extension of the Sonoran Desert that covers most of the southwestern United States and northwestern Mexico. The center of Imperial County is the Imperial Valley, formed by tectonic movement between the North American and Pacific plates. This sunken area between branches of the Peninsular Ranges is referred to as the Salton Trough, the northern landward extension of the Gulf of California (Imperial County 2015). Soils in the project area are mapped as the Imperial-Glenbar silty clay loam, wet, 0-2 percent slopes (NRCS 2024). Glenbar soils formed in stratified stream alluvium, and are on floodplains and alluvial fans. Natural drainage of soils has been altered by the seepage of water from irrigation canals and by extensive irrigation (USDA 2009). The project is within agricultural land use and is bisected by the Central Drain Canal. The closest natural water source is the Alamo River, which is approximately 0.68 miles east of the project area.

Lake Cahuilla

Environmental conditions in the Colorado Desert area have changed greatly during the millennia of human occupation. Probably the most important environmental change in the Colorado Desert in the past 2,000 years was the formation of Lake Cahuilla, also known geologically as Lake Le Conte and historically as Blake's Lake. Lake Cahuilla formed numerous times throughout the Pleistocene and Holocene epochs in response to the western diversion of the Colorado River into the Salton Trough. During each filling of Lake Cahuilla, water was impounded north of the barrier created by the Colorado River Delta. The lake continued to fill until the water reached an altitude of 12 meters (40 feet), the minimum crest of the delta at Cerro Prieto, where excess discharge would overflow into the Gulf of California (Waters 1983: 374). The shoreline of the most recent documented stands of Lake Cahuilla extended from about 20 miles south of the international border with Mexico to just northwest of Indio. Inundating the entire lower portion of the Coachella Valley, Lake Cahuilla was

approximately 115 miles long, about 34 miles wide, and nearly 320 feet deep; during these periods, the elevation of the lake was 40 feet above mean sea level (Wilke 1976: 53).

When inflow from the Colorado River was sufficient to maintain a relatively stable lake level, extensive marshes would have formed around its margins and freshwater fish and shellfish populations would have flourished. Thus, Lake Cahuilla offered an especially productive environment for aboriginal populations of the western Colorado Desert. When filled, Lake Cahuilla was on the Pacific Flyway for migratory birds; hence, ducks, geese, and other migratory birds would have been available. It is likely that 30 years of progressive recession, or lowering the surface of the lake by approximately 60 feet, would have sufficiently altered the chemical and ecological balance of the lake to all but eliminate its economically important plant and animal resources. However, as Lake Cahuilla gradually desiccated, mesquite thickets expanded to follow the retreating shoreline, generating different resource exploitation patterns by the prehistoric inhabitants of the region (Smith and Brock 1998).

Prehistoric Setting

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). 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 prehistory of Imperial County 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. 12,000–6000 BC; Paleo-Indian stage; Clovis and San Dieguito patterns); a Middle/Late Holocene period (ca. 6000 BC–AD 800; Archaic stage; La Jolla, Millingstone, Encinitas, and Pauma patterns); and a Late Prehistoric period (ca. AD 800–1769; Archaic stage; San Luis Rey, Palomar, and Peninsular patterns).

Terminal Pleistocene/Early Holocene Period (ca. 12,000–6000 BC)

The earliest chronologically distinctive archaeological pattern recognized in mainland California is the Clovis pattern. Dated to around 11,500 BC, Clovis assemblages are distinguished by fluted projectile points and other large bifaces, as well as extinct large mammal remains (Davis and Shutler 1969; Kline and Kline 2007; Rondeau, Cassidy, and Jones 2007). The most widely recognized archaeological pattern in this period is termed San Dieguito, which has been dated from at least as early as 8500 BC to perhaps around 6000 BC (Rogers 1966; True and Bouey 1990; Warren 1966; Warren, Siegler, and Dittmer 2008). Proposed characteristics to distinguish San Dieguito flaked lithic assemblages include large projectile points (Lake Mojave, Silver Lake, and other, less diagnostic forms), bifaces, crescents, scraper planes, scrapers, hammers, and choppers. The San Dieguito technology involved well-controlled percussion flaking and some pressure flaking. Malcolm Rogers (1966) suggested that three successive phases of the San Dieguito pattern (San Dieguito I, II, and III) could be distinguished in southern California, based on evolving aspects of lithic technology. However, subsequent investigators have generally not been able to confirm such changes, and the phases are not now generally accepted. A key issue has concerned ground stone, which was originally suggested as having been absent from San Dieguito components but has subsequently been recognized as occurring infrequently within them. It was initially suggested that San Dieguito components, like other Paleo-Indian manifestations, represented the products of highly mobile groups that were

organized as small bands and focused on the hunting of large game. However, in the absence of supporting faunal evidence, this interpretation has increasingly been called into question, and it has been suggested that the San Dieguito pattern represented a more generalized, Archaic-stage lifeway, rather than a true Paleo-Indian adaptation.

A vigorous debate has continued for several decades concerning the relationship between the San Dieguito pattern and the La Jolla pattern that succeeded it and which may have also been contemporaneous with or even antecedent to it (e.g., Gallegos 1987; Warren, Siegler, and Dittmer 2008). The initial view was that San Dieguito and La Jolla represented the products of distinct ethnic groups and/or cultural traditions (e.g., Rogers 1945; Warren 1967, 1968). However, as early Holocene radiocarbon dates have been obtained for site components with apparent La Jolla characteristics (shell middens, milling tools, and simple cobble-based flaked lithic technology), an alternative interpretation has gained some favor: that the San Dieguito pattern represented a functional variant related in particular to the production of bifaces, and that it represents activities by same people who were responsible for the La Jolla pattern (e.g., Bull 1987; Hanna 1983).

Middle/Late Holocene Period (ca. 6000 BC–AD 800)

Archaeological evidence from this period has been characterized as belonging to the Archaic stage, Millingstone horizon, or La Jolla pattern (Moratto 1984; Rogers 1945; Sutton and Gardner 2010; True 1958, 1980; True and Beemer 1982; True and Pankey 1985; Wallace 1955; Warren 1968; Warren, True, and Eudey 1961). Adaptations during this period apparently emphasized gathering, in particular the harvesting of hard plant seeds, as well as small-game hunting. Distinctive characteristics of the La Jolla pattern include extensive shell middens, portable ground stone metates and manos, crudely flaked cobble tools, occasional large expanding-stemmed projectile points (Pinto and Elko forms), and flexed human burials. Investigators have called attention to the apparent stability and conservatism of the La Jolla pattern throughout this long period, as contrasted with less conservative patterns observed elsewhere in coastal southern California (Hale 2009; Sutton 2011; Sutton and Gardner 2010; Warren 1968). However, distinct chronological phases within the pattern have also been suggested, based on changes in the flaked lithic and ground stone technologies, the shellfish species targeted, and burial practices (Harding 1951; Moriarty 1966; Rogers 1945; Shumway, Hubbs, and Moriarty 1961; Sutton and Gardner 2010; Warren 1964; Warren, Siegler, and Dittmer 2008).

Late Prehistoric Period (ca. AD 800–1769)

A Late Prehistoric period has been distinguished primarily on the basis of three major innovations: the use of small projectile points (Desert Side-notched, Cottonwood triangular, and Dos Cabezas forms) associated with the adoption of the bow and arrow in place of the atlatl as a primary hunting tool and weapon; brown ware pottery, presumably supplementing the continued use of basketry and other containers; and the practice of human cremation in place of inhumation. Uncertainty remains concerning the exact timing of these innovations, and whether they appeared simultaneously or sequentially (e.g., Griset 1996; Yohe 1992).

Traits characterizing the Late Prehistoric period include greater reliance on acorns as an abundant but labor-expensive food resource, a greater emphasis on hunting of both large and small game (particularly deer and rabbits), a greater amount of interregional exchange (seen notably in more use of obsidian), more elaboration of nonutilitarian culture (manifested in more frequent use of shell beads, decorated pottery and rock art), and possibly denser regional populations. Settlement may have become more sedentary during this period, as compared with the preceding period.

Ethnographic Evidence

At the time of European contact, the project area was inhabited by the Kumeyaay (also Diegueño/Kamia/Ipai/Tipai) and Quechan. The Kumeyaay occupied an area that extended from the Pacific Coast at San Diego eastward to the Sand Hills of Imperial County and south into modern-day Mexico (Luomala 1978). Subsistence consisted primarily of seasonal vegetal foods with opportunistic hunting practiced during gathering. Clans in the Imperial Valley also practiced some farming of maize, beans, and tobacco. The Kumeyaay are related to other tribes of the Yuman family languages and cultures (Wilken-Robertson 2018). Political organization was divided into 30 autonomous, seminomadic bands. Leaders were selected through patrilineal succession. Villages were predominantly seasonal, consisting of campsites rather than permanent settlements. Winter villages were typically found in sheltered foothills and valleys (Luomala 1978).

The Quechan, also known as the Yuma, continue to occupy their traditional territory at the confluence of the Gila and Colorado Rivers at the edge of the California, Arizona, and Mexican borders. Their territory stretched north along the Colorado River and to the east of the Gila River. The Quechan speak a language in the Yuman-Cochimi language family. People living in the territory were geographically divided into a series of settlements or *rancherías* north and south of the confluence of the Colorado and Gila Rivers. *Rancherías* comprised extended family groups with populations ranging into the hundreds. Subsistence primarily consisted of cultivated plants rather than gathered resources, which allowed for larger populations. Quechan planted their fields multiple times throughout the year with crops including teparies (beans) and maize. The Quechan recognized several patrilineal clan groups; however, a clan name was used only by females. Tribal structure, rather than *ranchería* or clan structure, played a crucial role during war expeditions against neighboring tribes (Imperial County 2015).

Historic Setting

European exploration of Imperial County began in 1540 with an expedition led by Melchior Diaz. However, the historic period did not begin until 1769, when multiple seaborne and overland expeditions under the leadership of the soldier Gaspar de Portolá and the Franciscan missionary Junípero Serra reached the region from Baja California and passed northward along the coastal plain to seek Monterey. Juan Bautista de Anza and Francisco Garcés pioneered a route from the Colorado River to coastal southern California. Early settlement sites of the Spanish period in the southeast portion of the County include Mission Puerto de Purísima Concepción (1780) and Mission San Pedro San Pablo de Bicuñer (1781) along the de Anza Trail. Both missions were destroyed in 1781 in conflicts between the Spanish and the Quechan (Imperial County 2015).

As Spanish attention was consumed by the Napoleonic wars in Europe, California and its government and missions were increasingly left to their own devices. In 1821, Mexico consummated its independence from Spain, and the region became more open to outside visitors and influences. The Mexican government attempted to reestablish an overland route from Sonora to the California coast in order to encourage trade and settlement. Following several expeditions, the Sonora Road was established in 1825, following portions of the de Anza Trail through the County before turning westward through the Carrizo Corridor and branching toward San Diego and Temecula. The Mexican government established a small adobe post, Fort Romualdo Pacheco, along this route in 1825. The fort was abandoned in 1826 following an attack by the Kumeyaay (Imperial County 2015).

Agricultural development became possible in 1891 with the natural development of the Salton Sea (Farr 1918: 3). The newfound fertility of the area prompted investors and San Diego County supervisors to reconsider their involvement in Imperial Valley. As a result, local entrepreneurs formed The California Development Company, which acquired one hundred thousand acres of land from General Guillermo Andrade, who owned most of the land in the Imperial Valley (Farr 1918: 4). The Imperial Land Company, formed by merchant Dr. W. T. Heffernan, founded the City of Imperial four years later.

The Imperial Land Company and California Development Company worked in tandem to immediately create an irrigation network that connected the Colorado River to the Imperial Valley as part of a larger effort toward desert reclamation. The California Development Company finished the canal system in 1901, promoting a period of immense regional growth. The establishment of the canal system was also matched by the completion of the Southern Pacific Rail Road's branch line to Old Beach between 1902 and 1903 (Farr 1918: 15). These two pivotal developments ushered in a population boom in the Imperial Valley, as agricultural laborers and merchants alike flocked to the rapidly growing community. As the community flourished, the San Diego Board of Supervisors ratified the creation of Imperial County separate from San Diego County on August 12, 1907 (Farr 1918: 18-19).

Agriculture is still the main source of revenue in Imperial County and constitutes $1.86 billion in market value of agricultural products sold (Census of Agriculture 2017). Throughout the twentieth and twenty-first centuries, the number of farms has grown to cover 521,729 acres of land as of 2017. The population has increased due to the growth of industry, which was reported to be 179,702 as of 2020 (US Census Bureau 2024).

Historic Context

Holtville

W. F. Holt established the City of Holtville two years after the construction of the irrigation canal system that connected the Imperial Valley to the Colorado River. Encouraged by the resulting agricultural expansion, Holt created the No. 7 Water Company as a subsidiary to the California Development Company. The No. 7 Water Company, alongside Holt's new Holton Power Company hydroelectric plant, brought canal branches and electricity to the City of Holtville between 1904 and 1905 (El Centro Chamber of Commerce and Visitors Bureau 2000). Through the early twentieth century, the booming agricultural industry attracted a large wave of migrant labor to Holtville, which was mostly Mexican in origin (Nevins 2011). Currently known as the "Carrot Capital of the World," Holtville's main form of revenue is still based in agriculture and supporting industries to agriculture (DataUSA 2024).

El Centro

The City of El Centro shared a similar origin to Holtville, as it was developed by W. F. Holt along with his business partner C. A. Barker in 1906 (City of El Centro 2024). El Centro rapidly expanded with population and industry and was incorporated into Imperial County in 1908. The development of El Centro and the rest of the Imperial Valley led to the Southern Pacific Railroad Company connecting the main line to San Diego with a branch line through El Centro in 1919 (El Centro Chamber of Commerce and Visitors Bureau 2000). The 1940s saw El Centro become the second largest city in Imperial County. Capitalizing on its central location between Highways 80 and 99, El Centro eventually

became a shipping nodal point for the agricultural industry in the Imperial Valley. From the 1940s to the present, employment has switched from labor to government and trade administration, illustrating the importance of El Centro to the region's commerce and logistics (El Centro Chamber of Commerce and Visitors Bureau 2000).

Water Conveyance and Control

In 2000, the California Department of Transportation (Caltrans) published a report that provides a statewide thematic approach to surveying and evaluating the ditches and canals commonly found throughout California. This report, *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures*, asserts that "there is an increased awareness canals and other water conveyance facilities can be historically significant, and that when projects do have the potential to affect them, they need to be studied systematically" (Caltrans and JRP Historical Consulting Services 2000: 1). Caltrans notes that some level of research is required to determine the potential for historical significance of these resources, and that certain types of features are more likely than others to have potential significance, including "prehistoric or mission era irrigation systems; gold rush-era mining ditches; early or major irrigation, reclamation, or hydroelectric systems, major multi-purpose systems, flumes; tunnels, or ditches that may possess engineering, construction, or design distinction; properties associated with important events, such as critical or precedent setting litigation; and any early or prototype facilities" (1). The report also delineates resources that typically would not require evaluation, including roadside drainage ditches; municipal water, sewer, and storm drain systems; most ordinary irrigation ditches; modified natural waterways; modern pipelines; isolated or unidentified ditch segments; and canals less than 50 years old (1-2). Caltrans outlines the types of actions that could result in an effect on a water conveyance resource, including but not limited to modifying a critical element of a significant system; concrete line or pipe an important earthen ditch; introducing visual instructions that alter a canal's historic setting; rerouting a critical component of an early system; obliterating a small mining ditch; or causing other changes to an important property's essential physical features (2). Ultimately, Caltrans cautions that, due to the ubiquitous nature of this type of resource, an understanding of the potential historical significance of a water conveyance resource is key to determining the level of documentation and evaluation necessary (1-2). For the Central Drain Canal, while an important part of the Imperial Valley water conveyance and control infrastructure, it is only one part of a large system that facilitated the agricultural success of the region.

Timber Bridges

The earliest bridges in California were of timber construction due to the availability of material (JRP Historical Consulting Services 2004: 19). During the early twentieth century, four types of timber bridges were built in California: slab, stringer, truss, and suspension. These timber bridges were typically constructed with Douglas fir and California redwood.

The increase of automobile usage combined with advances in bridge engineering and design techniques led to a shift toward steel and concrete bridges. However, timber bridges continued to be constructed until the 1960s, although typically on secondary roads with small crossings (JRP Historical Consulting Services 2004: 19). Most of the timber bridges built in California during this period were timber stringer or girder bridges (JRP Historical Consulting Services 2003: 59).

Timber Stringer Bridges

Timber stringer bridges consist of a wood plank deck supported by heavy, square or rectangular, solid-sawn wood beams (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-81). The ends of the stringers in a timber stringer bridge rest on a single vertical support made of stone, concrete, wood, or steel piles. The roadway of a timber stringer bridge is usually timber decking with an asphalt overlay. Timber stringer bridges rarely have spans of more than 30 feet due to the lower strength of wood compared to concrete or steel. Most timber stringer bridges are one to four spans and less than 100 feet long in total.

Timber stringers are a simple bridge type that are ubiquitous throughout California and the country. The majority of the extant pre-1960 examples of timber stringer bridges in California were constructed in the 1930s through the 1950s. Timber stringer bridges were generally used for small crossings because the material was relatively inexpensive, and easy to transport and assemble. Although this bridge type was once common in California, they are more susceptible to deterioration, which requires replacement. These types of bridges have a low level of possible significance due to a lack of technical innovation or noteworthy design.

People

Targeted research failed to identify any direct association with the Meloland Bridge (No. 58C-0155) or the Central Drain Canal and the lives of significant persons in the past (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Architect and Builder

The Meloland Bridge (No. 58C-0155) was constructed in 1940 by the Imperial County Public Works Department (Caltrans 2024). Targeted research failed to identify any architect associated with the design of the Meloland Bridge (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

The Central Drain Canal was constructed by the Imperial Irrigation District in 1922. Targeted research failed to identify any architect associated with the design of the Central Drain Canal (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Project Area Development History

The project area was part of the public land surveyed in 1856. Plat maps show no development in the area or vicinity until the early twentieth-century boom of the agricultural industry and the completion of the Imperial Canal system in 1901 (BLM 1856, 1908).

A 1905 USGS map shows the project area as undeveloped land east of the Alamo River, though a network of irrigation ditches and canals, dirt roads, and small structures are depicted in its vicinity. An unnamed dirt road is visible to the west, Rubber Ditch to the north, Redwood Ditch to the northeast, and Palmetto Ditch to the east. The City of Holtville is visible approximately 0.5 miles away at the terminus of Holton Interurban Railway south of the project area (USGS 1905).

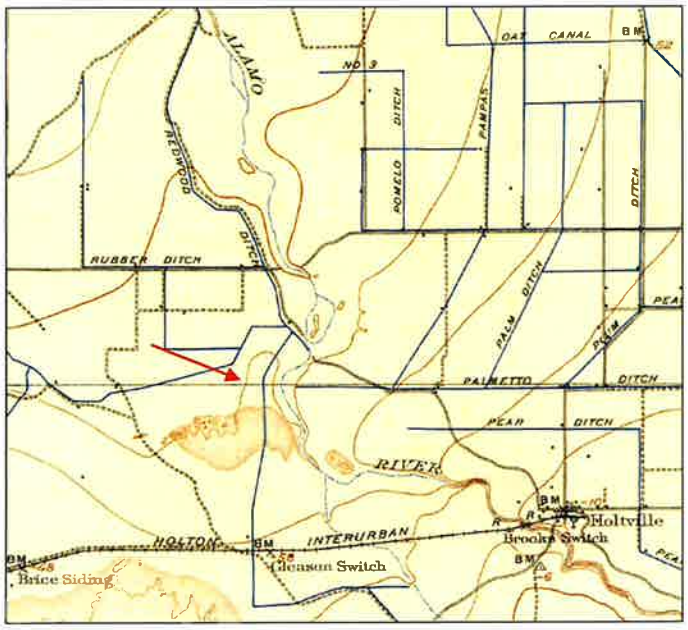

Figure 1: A 1905 USGS map shows the undeveloped project area and vicinity. A red arrow points to the approximate site of the project area (USGS 1905).

During the 1920s, the Imperial Irrigation District continued to expand the irrigation canal system. By 1922, the Central Drain Canal had been constructed in the project area. The network of canals surrounding the Central Drain was expanded with branches of farm tile drains, reaching 160 acres of farmland throughout the Imperial Valley and 234 miles throughout the entire system in 1929 (Imperial Valley Press 1922).

A 1940s map shows the unlined Central Drain Canal within the project area and vicinity. The canal has an overall east–west alignment and a small timber bridge (No. 58C-0155) carries a north–south dirt road (Meloland Road) across it. Meloland Bridge (No. 58C-0155) was constructed by the Imperial County Public Works Department in 1940. The map also shows the eastern terminus of the Central Drain at the Rositas Canal. Agricultural fields, farmhouses, and an expanded network of canals and roads surround the project area; Rose Canal is visible to the north, parallel to the Central Drain. Highway 80 (Evan Hewes Highway) is visible to the south, and County Road 28 (E. Worthington Road) is visible to the north of the project area (USGS 1940, 1942, 1945).

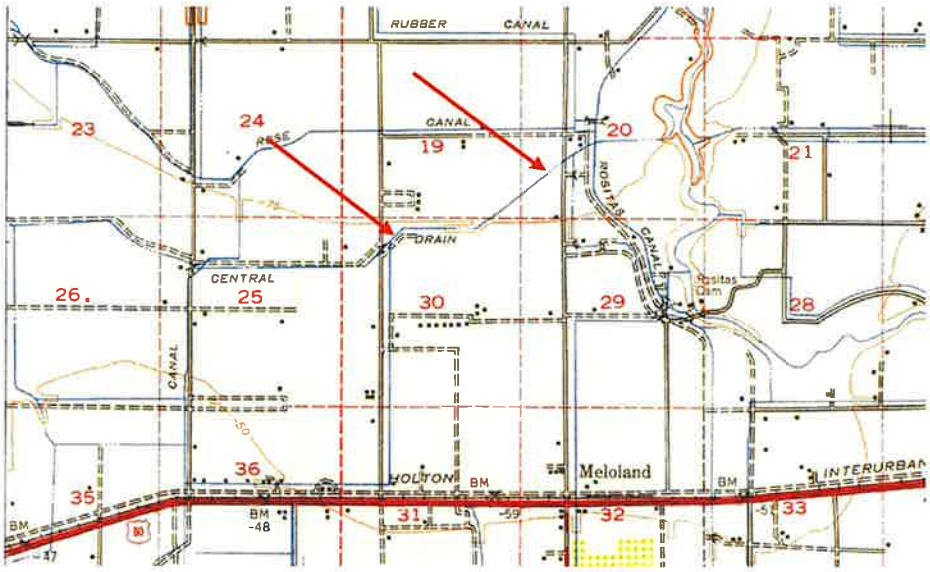

Figure 2: A 1940 USGS map of the project area and surrounding region. A red arrow points to the Central Drain Canal, bridge, and road within the project area (USGS 1940).

The project area remained unchanged during the 1950s, 1960s, and 1970s, with agricultural fields and irrigation laterals surrounding it. A 1956 USGS map clearly shows a timber bridge (No. 58C-0155) over the Central Drain Canal at Meloland Road (NETR 2024; USGS 1956, 1957, 1968, 1979).

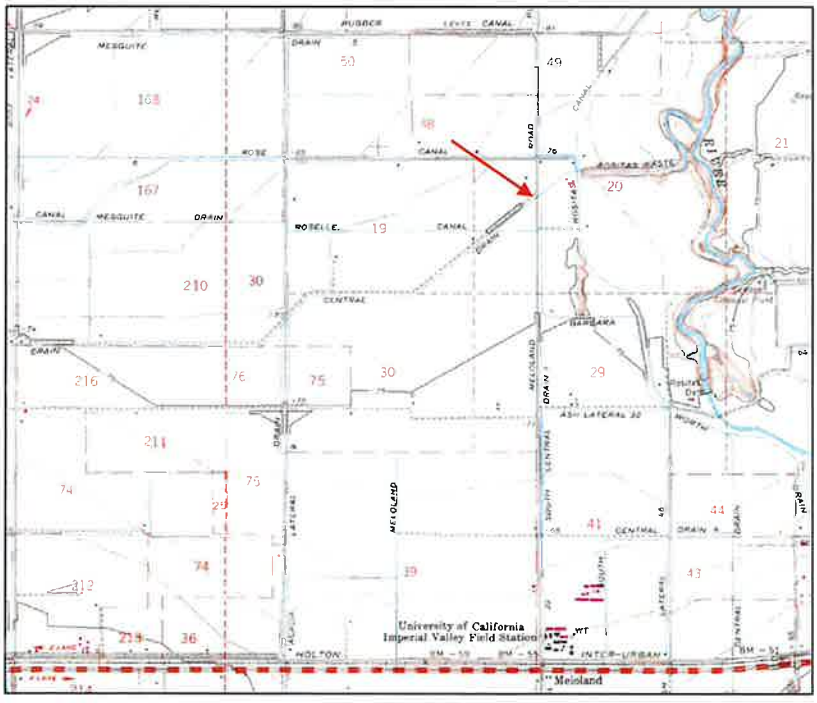

Figure 3: A 1956 USGS map of the project area and surrounding vicinity. A red arrow points to the location of the Central Drain Canal and Meloland Road Bridge (USGS 1956).

Currently, Meloland Road continues to be a north–south major collector road that serves the agricultural community and the Holtville area via Evan Hewes Highway north to Worthington Road and provides connectivity to the Cities of Imperial and North El Centro. The bridge's current path appears consistent with its historic alignment (Google Earth 2024; NETR 2024).

Figure 4: A current aerial view of the project area (Google Maps 2024).

Native American Heritage Commission (NAHC) Sacred Lands File Search

On March 4, 2024, Michael Baker International requested that the NAHC search the Sacred Lands File for any Native American cultural resources that might be affected by the project. The NAHC responded in a March 12, 2024, letter that the Sacred Lands File had been searched with positive results. Additionally, the NAHC appended a list of tribal contacts who may have knowledge about and interest in tribal cultural resources located within the project vicinity. The NAHC correspondence is presented in **Attachment 3**. No further outreach has been conducted by Michael Baker International. The County is conducting Assembly Bill 52 consultation as part of the environmental document.

Field Survey Methods And Results

Michael Baker International conducted an intensive-level cultural resources pedestrian survey of the project area on April 2, 2024. The project area is mainly composed of a portion of the paved two-lane Meloland Road, including the existing local bridge (No. 58C-0155) over the unlined Central Drain Canal. The undeveloped portions of the project area along both sides of the road, the north and south

banks of the canal, were intensively surveyed. Photographs of the built environment, specifically the Meloland Bridge and the segment of the unlined Central Drain Canal, were taken. Notes consisted of observations of the bridge's architectural design, materials, alterations, and description of the canal. Ground visibility was good (up to 90 percent), with the project area clear of vegetation except for the banks of the canal. The project area and vicinity have been disturbed by utility roads, cultivation, irrigation, and road maintenance. Modern refuse was observed along the banks of the canal and throughout the project area.

During the pedestrian survey, the Meloland Road Bridge (No. 58C-0155) and a segment of the unlined Central Drain Canal, both historic-aged built environment resources, were photo-documented for the purpose of a California Register evaluation. No other prehistoric or historical archaeological resources were identified. The Meloland Road Bridge and the Central Drain Canal are described below, and in more detail on the DPR 523 series forms for each resource (**Attachment 4).**

Meloland Road Bridge (No. 58C0155).

Meloland Bridge (No. 58C-0155) is a five-span timber stringer bridge constructed in 1940 that carries Meloland Road over the Central Drain Canal. Constructed by the Imperial County Public Works Department, the bridge is approximately 80 feet long with a deck width of 24 feet and is supported by timber cross-braces on wooden piles (Photograph 1). The bridge's current path appears consistent with its historic alignment (Google Earth 2024; NETR 2024).

Photograph 1: Overview of the Meloland Bridge (No. 58C-0155) over the Central Drain Canal. View southwest, April 2, 2024.

Central Drain Canal

The Central Drain Canal, constructed in 1922, has an overall east–west alignment (Photograph 2). The entire length of the canal (approximately 11 miles) is unlined and averages a width of 27 feet for its entire length. The canal slope is approximately 25 feet from road level to the base of the creek. The western terminus of the main Central Drain Canal is at Patrol Road, where the canal travels under the road and continues southeast as Central Drain 10. The eastern terminus of the Central Drain Canal is at the Rositas Canal, south of Grumbles Road. Various roadways are carried over the canal by small bridges and culverts. Vegetation is present along the banks of the canal and is typical of non-engineered water-rich areas.

Photograph 2: Overview of the Central Drain Canal at Meloland Road. View northeast, April 2, 2024.

ARCHAEOLOGICAL SENSITIVITY ANALYSIS

The project area consists of a Meloland Road timber bridge over the unlined Central Drain Canal. Soil data indicate that the surface of the project area is underlain by silty clay loam stratified stream alluvium. However, natural drainage of soils has been altered by the seepage of water from irrigation canals and extensive irrigation. The man-made canal was constructed in early 1920, and the bridge was constructed in 1940. Both structures have been subject to periodic maintenance through time. This development, in addition to the periodic maintenance of both structures, disturbed the soils within the project area.

SCIC records search results and the field survey identified no previously recorded prehistoric sites or isolated prehistoric artifacts within the project area or the half-mile search radius. A review of topographic maps and aerial photographs indicated that no significant historic period archaeological

sites or built features are anticipated within the project area. Construction for the replacement of the bridge would take place in an area previously disturbed by the original development of the canal, bridge, and road. This suggests that potential for encountering unknown significant prehistoric archaeological sites within the project area is low to negligible.

Evaluation

California Register of Historical Resources Evaluations

The criteria for eligibility for listing in the California Register are based upon the National Register. To be eligible for listing in the California Register, a property must be at least 50 years of age (resources less than 50 years of age may be eligible if they can demonstrate that sufficient time has passed to understand their historical importance) and possess significance at the local, state, or national level, under one or more of the following criteria:

> **Criterion 1**. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> **Criterion 2**. It is associated with the lives of persons important in our past.
>
> **Criterion 3**. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
>
> **Criterion 4**. It has yielded, or may yield, information important in history or prehistory.

In addition to meeting a significance criterion, a property must also have integrity, or the ability to convey its significance, under a majority of the seven aspects of integrity—location, design, materials, workmanship, setting, feeling, and association.

California Register Evaluations

Michael Baker International staff identified two historic era built environment resources during the intensive pedestrian survey: the Meloland Road Bridge (No. 58C-0155) constructed in 1940 and the Central Drain Canal constructed in 1922.

The following includes an evaluation of both resources for eligibility for listing on the California Register. Neither property has previously been evaluated for the California Register (OHP 2024d). The full descriptions, historical context, and evaluations are presented in the DPR 523 form sets presented in **Attachment 4**.

Meloland Road Bridge (No. 58C-0155)

Meloland Bridge is a five-span timber stringer bridge constructed in 1940 by the Imperial County Public Works Department that carries Meloland Road over the Central Drain Canal. According to the Caltrans Local Agency Historic Bridge Inventory, this bridge is listed as a Category 5, "Bridge not eligible for NRHP" (Caltrans 2024). The following is an evaluation of this resource for the California Register.

Criterion 1 – Research did not demonstrate that the Meloland Bridge (No. 58C-0155) was associated with events significant to the broad patterns of our history at the local, state, or national level. The bridge was constructed in 1940 as part of the local population increase and agricultural expansion in Imperial County. While the addition of the bridge expanded access to the Imperial Valley north of the Central Drain Canal via Meloland Road, it is not significantly associated with the increased

development of the area, or road and bridge development in Imperial County, nor is it directly or significantly associated with general bridge development at the state or national level. The Meloland Bridge is not known to have made a significant contribution to other broad patterns of local, regional, state, or national culture and history. The Meloland Bridge is a ubiquitous timber stringer bridge type in similar form in the region since the early twentieth century. As such, it is not one of the first or pioneering timber stringer bridges, nor was it significant to the development of the Central Drain Canal, which was constructed in 1922. The Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 1.

Criterion 2 – To be eligible under Criterion 2, a property must be directly associated with a person's productive life during the period in which they achieved their significance. Additionally, if multiple properties are linked to the productive life of a significant person, those properties must be compared to determine which best represents the historical contributions of that individual. The Meloland Bridge (No. 58C-0155) is part of a local roadway system established, managed, and utilized by numerous public and private citizens. Although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this bridge, or that this bridge would be the best physical representation of those contributions. Therefore, the Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 2.

Criterion 3 – The Meloland Bridge (No. 58C-0155), a timber stringer bridge, is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of timber stringer bridge in the region, state, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The Meloland Bridge is not the representative work of a master, nor does it possess high artistic values. Therefore, the Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 3.

Criterion 4 – The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the Meloland Bridge (No. 58C-0155) is recommended as not eligible for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, the Meloland Bridge (No. 58C-0155) is recommended as ineligible for listing in the California Register. It is not a historical resource as defined by CEQA Section 15064.5(a).

Integrity – The Meloland Bridge (No. 58C-0155) is recommended as ineligible under all four California Register criteria. Therefore, an analysis of integrity is not required.

Central Drain Canal

The approximately 11-mile-long, east–west aligned Central Drain Canal was constructed in 1922. The western terminus of the main Central Drain Canal is at Patrol Road, where the canal travels under the road and continues southeast as Central Drain 10. The eastern terminus of the Central Drain is at the Rositas Canal, south of Grumbles Road.

Criterion 1 – Research did demonstrate that the Central Drain Canal was associated with the growth and expansion of agriculture in Imperial County. The canal was constructed in 1922 as part of the response to the local population increase and to assist in the expansion of agriculture in Imperial County. While the construction of the canal was important to expanding access to and control of water in the Imperial Valley, the canal was not the first to be constructed in the region. It was a part of an expanding system of water infrastructure and was not directly nor significantly associated with the increased development of the area, nor directly or significantly associated with general agricultural development at the state or national level. The Central Drain Canal is not known to have made a significant contribution to other broad patterns of local, regional, state, or national culture and history. The Central Drain Canal is an example of an ubiquitous unlined canal found throughout in the region since the early twentieth century. As such, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 1.

Criterion 2 – To be eligible under Criterion 2, a property must be directly associated with a person's productive life during the period in which they achieved their significance. Additionally, if multiple properties are linked to the productive life of a significant person, those properties must be compared to determine which best represents the historical contributions of that individual. The Central Drain Canal is part of a water infrastructure system established, managed, and utilized by numerous public and private citizens; although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this canal, or that this canal would be the best physical representation of those contributions. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 2.

Criterion 3 – The Central Drain Canal is an unlined canal and is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of an unlined canal in the region, state, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The Central Drain Canal is not the representative work of a master, nor does it possess high artistic values. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 3.

Criterion 4 – The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, the Central Drain Canal is recommended as ineligible for listing in the California Register. It is not a historical resource as defined by CEQA Section 15064.5(a).

Integrity – The Central Drain Canal is recommended as ineligible under all four California Register criteria. Therefore, an analysis of integrity is not required.

FINDINGS AND RECOMMENDATIONS

The SCIC records search, literature and historical map review, field survey, and California Register evaluations identified no historical or archaeological resources within the project area, as defined by CEQA Section 15064.5(a). Two historic-built environment resources within the project area—Meloland Road Bridge (No. 58C-0155) and a segment of the Central Drain Canal—were identified and

documented on appropriate DPR 523 series forms and evaluated for eligibility for listing on the California Register in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. The resources are not eligible for inclusion in the California Register. No further work is recommended for resource these resources.

While research suggests that archaeological sensitivity is low within the project area, there is potential to identify resources during earth-moving activities. Impacts to archaeological resources and human remains will be avoided through the implementation of the following recommendation:

> ***Inadvertent Discovery*** – In the event that any subsurface cultural resources are encountered during earth-moving activities, it is recommended that all work be halted in the vicinity of the discovery until a qualified archaeologist meeting the Secretary of the Interior's Standards can evaluate the significance of the materials prior to resuming any construction-related activities in the vicinity of the find. and make recommendations. The archaeologist may evaluate the find in accordance with federal, state, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5(e), and Public Resources Code Section 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of human remains in a location other than a dedicated cemetery. If human remains are found during ground-disturbing activities, no further disturbance shall occur until the Imperial County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Imperial County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

PREPARER QUALIFICATIONS

This report was prepared by Michael Baker International Senior Archaeologist Kholood Abdo, Senior Architectural Historian Susan Wood, and Architectural Historian Lea Kolesky. Archaeologist Alex Aguilar conducted the field survey and resource documentation and Senior Archaeologist Marc Beherec conducted the quality assurance review.

KHOLOOD ABDO, MA, RPA, SENIOR ARCHAEOLOGIST

Kholood has worked as an archaeologist in cultural resource management since 1999. She meets the Secretary of the Interior's Professional Qualification Standards for prehistory and historical archaeology. She has completed projects in all phases of archaeology: Phase I pedestrian and shovel test surveys, extended Phase I survey, buried site testing, archaeological sensitivity assessments, Phase II testing and evaluations, Phase III data recovery, and Phase IV monitoring in California. Kholood has written and contributed to scores of technical reports, including National Environmental Policy Act (NEPA), National Historic Preservation Act, and CEQA compliance documents. Her project responsibilities include project management, oversight of archaeological studies, phases of archaeological fieldwork, and tribal consultation and coordination.

SUSAN WOOD, PHD

Susan is a senior architectural historian experienced in historic preservation and cultural resource management in California. She meets the Secretary of the Interior's Professional Qualification Standards for architectural history, history, and archaeology. Susan's professional activities include historical resource evaluations, significance evaluations, integrity assessments, effects analysis, mitigation documentation, design review, archival and historical research, architectural and archaeological field surveys, and project management. As an architectural historian, she has performed numerous historical property assessments and National/California evaluations. Her archaeological expertise includes site significance assessments and determination of project impacts pursuant to Section 106 of the NHPA and CEQA. Susan has conducted years of ethnohistorical research focused on decolonization and prehistoric archaeology in the San Bernardino National Forest and the history of anthropology in California. She has organized and curated several historical- and anthropological-themed interoperative events for the Los Angeles County Fair in collaboration with tribal elders. In this capacity, she has worked extensively in Riverside, San Bernardino, and Los Angeles Counties.

LEA KOLESKY, BA, ARCHITECTURAL HISTORIAN

Lea is an architectural historian with over a decade of experience in cultural resource management consulting and historic preservation planning. She has worked on projects involving residential, commercial, industrial, military, educational, infrastructure, and transportation in both urban and rural settings. Her planning experience includes reviewing permit applications and design projects for adherence to the Secretary of the Interior's Standards; reviewing evaluations of local, state, and national historical significance; coordinating local implementation of the Mills Act, California's statewide historic tax credit program; and making regular presentations at public hearings. As an architectural historian, Lea's experience includes numerous aspects of CEQA, Section 106, and Section 110 compliance, including historical evaluations, building surveys, state inventory form preparation, determination of effects evaluations, archival records research, deed research, and Historic American Buildings Survey/Historic American Engineering Record documentation. Lea is a qualified architectural

historian in accordance with the Secretary of the Interior's Standards and Guidelines for historic preservation and history.

Sincerely,

Kholood Abdo, MA, RPA
Senior Cultural Resources Manager

Susan Wood, PhD
Senior Architectural Historian

Lea Kolesky, BA
Architectural Historian

Attachments:
Attachment 1 – Figures
Attachment 2 – SCIC Records Search Results
Attachment 3 – NAHC Sacred Lands File Search Results
Attachment 4 – DPR 523 Form Set

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Attachment 1

Figures

Legend

★ Project Location

Michael Baker INTERNATIONAL

0 2.5 5 Miles

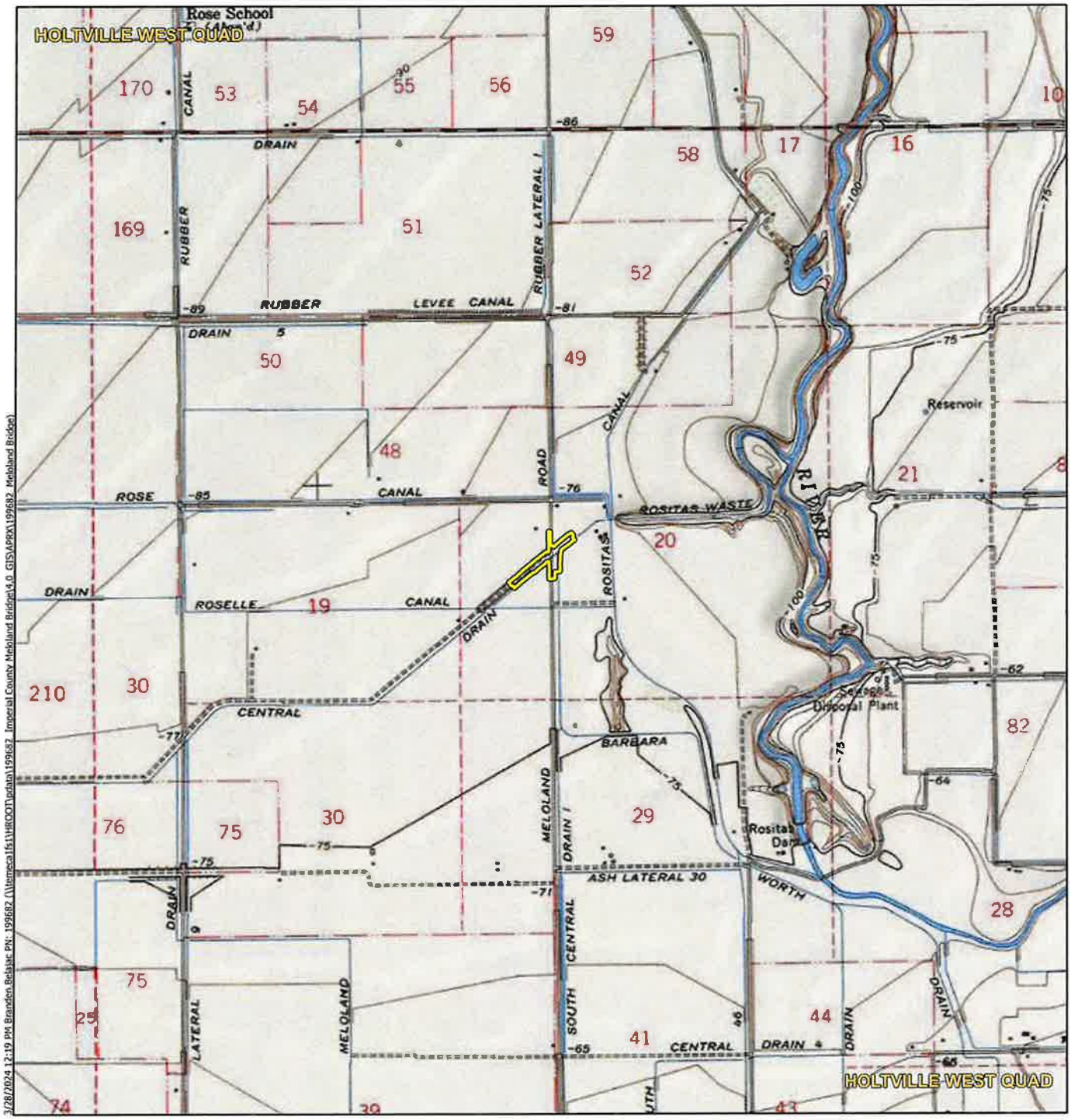
Source: Esri National Geographic Style Map, Esri USA Counties

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Regional Vicinity

Figure 1

EEC ORIGINAL PKG



Legend

Project Area

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Vicinity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri USA Topo Maps, ArcGIS Online, Holtville West USGS 7.5-Minute topographic quadrangle map *Holtville, California*

Figure 2

EEC ORIGINAL PKG

4/11/2024 12:20 PM Brandon.Belasic PN: 199682 \\Temecal\ls1\HR\DOT\Data\199682_Imperial County Meloland Bridge\v4.0_GIS\APRX\199682_Meloland Bridge\

Legend

Project Area

Michael Baker INTERNATIONAL

0 75 150 Feet

Source: Nearmap Imagery 2023

MELOLAND ROAD BRIDGE REPLACEMENT
OVER CENTRAL DRAIN BRIDGE NO. 58C-0155

Project Area

Figure 3

EEC ORIGINAL PKG

Attachment 2

SCIC Records Search Results

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

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

Company: Michael Baker International

Company Representative: Kholood Abdo

Date Processed: 3/22/2024

Project Identification: Meloland Road Bridge (199682)

Search Radius: 1/2 mile

Historical Resources: JL

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: JL

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: JL

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

Historic Maps: N/A

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

Summary of SHRC Approved CHRIS IC Records Search Elements	
RSID:	3590
RUSH:	no
Hours:	1
Spatial Features:	1
Address-Mapped Shapes:	no
Digital Database Records:	1
Quads:	1
Aerial Photos:	0
PDFs:	Yes
PDF Pages:	30

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

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-13-012159	CA-IMP-010842	Other - 10B-2				2010 (ASM Affiliates)	

Attachment 3

NAHC Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

March 12, 2024

Kholood Abdo
Michael Baker International

Via Email to: ***Kholood.Abdo@mbakerintl.com***

Re: Meloland Road Bridge at Central Drain Project, Imperial County

To whom it may concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

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 lists contain current information.

If you have any questions or need additional information, please contact me at my email address: murphy.donahue@nahc.ca.gov

Sincerely,

Murphy Donahue

Murphy Donahue
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Imperial County
3/13/2024

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Imperial	Barona Group of the Capitan Grande	F	Art Bunce, Attorney		(760) 489-0329		buncelaw@aol.com	Diegueno	Imperial,San Diego	7/25/2023
	Campo Band of Diegueno Mission Indians	F	Ralph Goff, Chairperson	36190 Church Road, Suite 1 Campo, CA, 91906	(619) 478-9046	(619) 478-5818	rgoff@campo-nsn.gov	Diegueno	Imperial,San Diego	
	Ewiiaapaayp Band of Kumeyaay Indians	F	Michael Garcia, Vice Chairperson	4054 Willows Road Alpine, CA, 91901	(619) 933-2200	(619) 445-9126	michaelg@leaningrock.net	Diegueno	Imperial,San Diego	
	Ewiiaapaayp Band of Kumeyaay Indians	F	Robert Pinto, Chairperson	4054 Willows Road Alpine, CA, 91901	(619) 388-4382	(619) 445-9126	ceo@ebki-nsn.gov	Diegueno	Imperial,San Diego	
	Iipay Nation of Santa Ysabel	F	Clint Linton, Director of Cultural Resources	P.O. Box 507 Santa Ysabel, CA, 92070	(760) 803-5694		clinton@redtailenvironmental.com	Diegueno	Imperial,San Diego	11/30/2023
	Inaja-Cosmit Band of Indians	F	Rebecca Osuna, Chairperson	2005 S. Escondido Blvd. Escondido, CA, 92025	(760) 737-7628	(760) 747-8568		Diegueno	Imperial,San Diego	
	Jamul Indian Village	F	Erica Pinto, Chairperson	P.O. Box 612 Jamul, CA, 91935	(619) 669-4785	(619) 669-4817	epinto@jiv-nsn.gov	Diegueno	Imperial,San Diego	
	Jamul Indian Village	F	Lisa Cumper, Tribal Historic Preservation Officer	P.O. Box 612 Jamul, CA, 91935	(619) 669-4855		lcumper@jiv-nsn.gov	Diegueno	Imperial,San Diego	9/5/2018
	Kwaaymii Laguna Band of Mission Indians	N	Carmen Lucas, Chairperson	P.O. Box 775 Pine Valley, CA, 91962	(619) 709-4207			Kwaaymii Diegueno	Imperial,San Diego	6/20/2023
	La Posta Band of Diegueno Mission Indians	F	Gwendolyn Parada, Chairperson	8 Crestwood Road Boulevard, CA, 91905	(619) 478-2113	(619) 478-2125	LP13boots@aol.com	Diegueno	Imperial,San Diego	
	Manzanita Band of Kumeyaay Nation	F	Angela Elliott Santos, Chairperson	P.O. Box 1302 Boulevard, CA, 91905	(619) 766-4930	(619) 766-4957		Diegueno	Imperial,San Diego	

Native American Heritage Commission
Native American Contact List
Imperial County
3/13/2024

Mesa Grande Band of Diegueno Mission Indians	F	Michael Linton, Chairperson	P.O Box 270 Santa Ysabel, CA, 92070	(760) 782-3818	(760) 782-9092	mesagrandeband@msn.com	Diegueno	Imperial,San Diego	
Quechan Tribe of the Fort Yuma Reservation	F	Jill McCormick, Historic Preservation Officer	P.O. Box 1899 Yuma, AZ, 85366	(928) 261-0254		historicpreservation@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee	P.O. Box 1899 Yuma, AZ, 85366	(928) 210-8739		culturalcommittee@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
Quechan Tribe of the Fort Yuma Reservation	F	Jordan Joaquin, President, Quechan Tribal Council	P.O.Box 1899 Yuma, AZ, 85366	(760) 919-3600		executivesecretary@quechantribe.com	Quechan	Imperial,Kern,Los Angeles,Riverside,San Bernardino,San Diego	5/16/2023
San Pasqual Band of Diegueno Mission Indians	F	John Flores, Environmental Coordinator	P. O. Box 365 Valley Center, CA, 92082	(760) 749-3200	(760) 749-3876	johnf@sanpasqualtribe.org	Diegueno	Imperial,San Diego	8/16/2016
San Pasqual Band of Diegueno Mission Indians	F	Allen Lawson, Chairperson	P.O. Box 365 Valley Center, CA, 92082	(760) 749-3200	(760) 749-3876	allenl@sanpasqualtribe.org	Diegueno	Imperial,San Diego	
Sycuan Band of the Kumeyaay Nation	F	Bernice Paipa, Cultural Resource Specialist	Sycuan Cultural Center: 910 Willow Glen Drive El Cajon, CA, 92019	(619) 445-6917		bpaipa2@sycuan-nsn.gov	Kumeyaay	Imperial,San Diego	8/7/2023
Sycuan Band of the Kumeyaay Nation	F	Cody Martinez, Chairman	Sycuan Tribal Office: 1 Kwaaypaay Court El Cajon, CA, 92019	(619) 445-2613		cmartinez@sycuan-nsn.gov	Kumeyaay	Imperial,San Diego	8/7/2023
Viejas Band of Kumeyaay Indians	F	Ernest Pingleton, THPO	1 Viejas Grade Road Alpine, CA, 91901	(619) 445-3810		epingleton@viejas-nsn.gov	Kumeyaay	Imperial,San Diego	6/29/2023
Viejas Band of Kumeyaay Indians	F	Ray Teran, Resource Management Director	1 Viejas Grade Road Alpine, CA, 91901	(619) 659-2312		rteran@viejas-nsn.gov	Kumeyaay	Imperial,San Diego	6/29/2023

Native American Heritage Commission
Native American Contact List
Imperial County
3/13/2024

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 Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Meloland Road Bridge at Central Drain Project, Imperial County.

Record: PROJ-2024-001426
Report Type: List of Tribes
Counties: Imperial
NAHC Group: All

Attachment 4

DPR 523 Form Set

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

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 of 14 ***Resource Name or #:** Meloland Bridge (No. 58C-0155)

P1. Other Identifier: None

***P2.Location:** ☒ **Unrestricted**

***a. County** Imperial **and**

***b. USGS 7.5' Quad** *Holtville, Calif.* **Date** 1965 (rev. 1981) **T** 15S; **R** 15E; Sec 20 **S.B.B.M**

c. Address: Meloland Avenue at the Central Drain **City:** Unincorporated Imperial County **Zip:** 92243

d. UTM: Zone 11S 645224mE/33633570 mN (northern terminus)
645240mE/3633552mN (southern terminus)

e. Other Locational Data: N/A

***P3a. Description:**

The Meloland Bridge (No. 58C-0155) is a five-span timber stringer bridge constructed in 1940 that carries Meloland Road over the Central Drain Canal. The bridge is approximately 80 feet long with a deck width of 24 feet. The bridge is supported by timber cross-braces on wooden piles (**Photograph 1** through **Photograph 9**) (Caltrans 2024). (See Continuation Sheets).

***P3b. Resource Attributes:** HP19. Bridge

***P4. Resources Present:** ☒ Structure

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

Photograph 1: See P5b for caption.

P5b. Description of Photo: Overview of Meloland Bridge (No. 58C-0155) over the Central Drain Canal. View southwest, April 2, 2024.

P6. Date Constructed/Age and Source:
☒ Historic
1940 (Caltrans 2024)

***P7. Owner and Address:**
Imperial County
Public Works Department
155 South 11th Street
El Centro, CA 92243

***P8. Recorded by:**
Alexandria Aguilar
Michael Baker International
5 Hutton Centre Drive, Suite 500
Santa Ana, CA 92707

***P9. Date Recorded:**
April 2, 2024

***P10. Survey Type:** Intensive Pedestrian

***P11. Report Citation:**

Wood, Susan, Lea Kolesky, and Kholood Abdo. 2024. "Cultural Resources Identification Memorandum for the Meloland Road at Central Drain Bridge Replacement Project, Imperial County, California." Temecula, CA: Michael Baker International.

***Attachments:** ☒Building, Structure, and Object Record ☒Location Map ☒Sketch Map ☒Continuation Sheet

*NRHP Status Code 6Y
*Resource Name or # Meloland Bridge (No. 58C-0155)

B1. Historic Name: N/A
B2. Common Name: Meloland Bridge
B3. Original Use: Automobile bridge
B4. Present Use: Automobile bridge
***B5. Architectural Style:** Timber stringer bridge
***B6. Construction History:**

Meloland Bridge (No. 58C-0155) was constructed by the Imperial County Public Works Department in 1940 (Caltrans 2024). The bridge is first visible on 1940 USGS maps (USGS 1940). The bridge's current path appears consistent with its historical alignment (Google Earth 2024; NETR 2024). Basic observations in the field indicate that the wooden abutments were replaced at an unknown date. There are no other known modifications to the bridge.

***B7. Moved?** ☒No **Date:** N/A **Original Location:** N/A
***B8. Related Features:** Central Drain canal

B9a. Architect: Unknown **b. Builder:** Imperial County Public Works Department
***B10. Significance: Theme:** Regional development; Bridge architecture; agricultural industry **Area:** Imperial County, California
Period of Significance: 1940 **Property Type:** Bridge **Applicable Criteria:** N/A

Regional History
The area that is now Imperial County was first encountered by European settlers in 1540, beginning with an expedition led by Melchior Diaz. Although travelers were aware of the area, Imperial Valley was not settled during the Mission era and the California Gold Rush due to the area's arid climate and infertile land. Agricultural development became possible in 1891 with the natural development of the Salton Sea (Farr 1918: 3). The newfound fertility of the area prompted investors and San Diego County supervisors to reconsider their involvement in Imperial Valley. As a result, local entrepreneurs formed the California Development Company, which acquired one hundred thousand acres of land from General Guillermo Andrade, who owned most of the land in the Imperial Valley (Farr 1918: 4). The Imperial Land Company, formed by merchant Dr. W. T. Heffernan, founded the City of Imperial four years later. (See Continuation Sheets).

B11. Additional Resource Attributes: N/A
***B12. References:** See Continuation Sheets.
B13. Remarks: N/A

***B14. Evaluator:**
Lea Kolesky, Architectural Historian
Susan Wood, Senior Architectural Historian
Michael Baker International
3100 Zinfandel Drive, #125
Rancho Cordova, CA 95670

***Date of Evaluation:** April 2024

(This space reserved for official comments.)

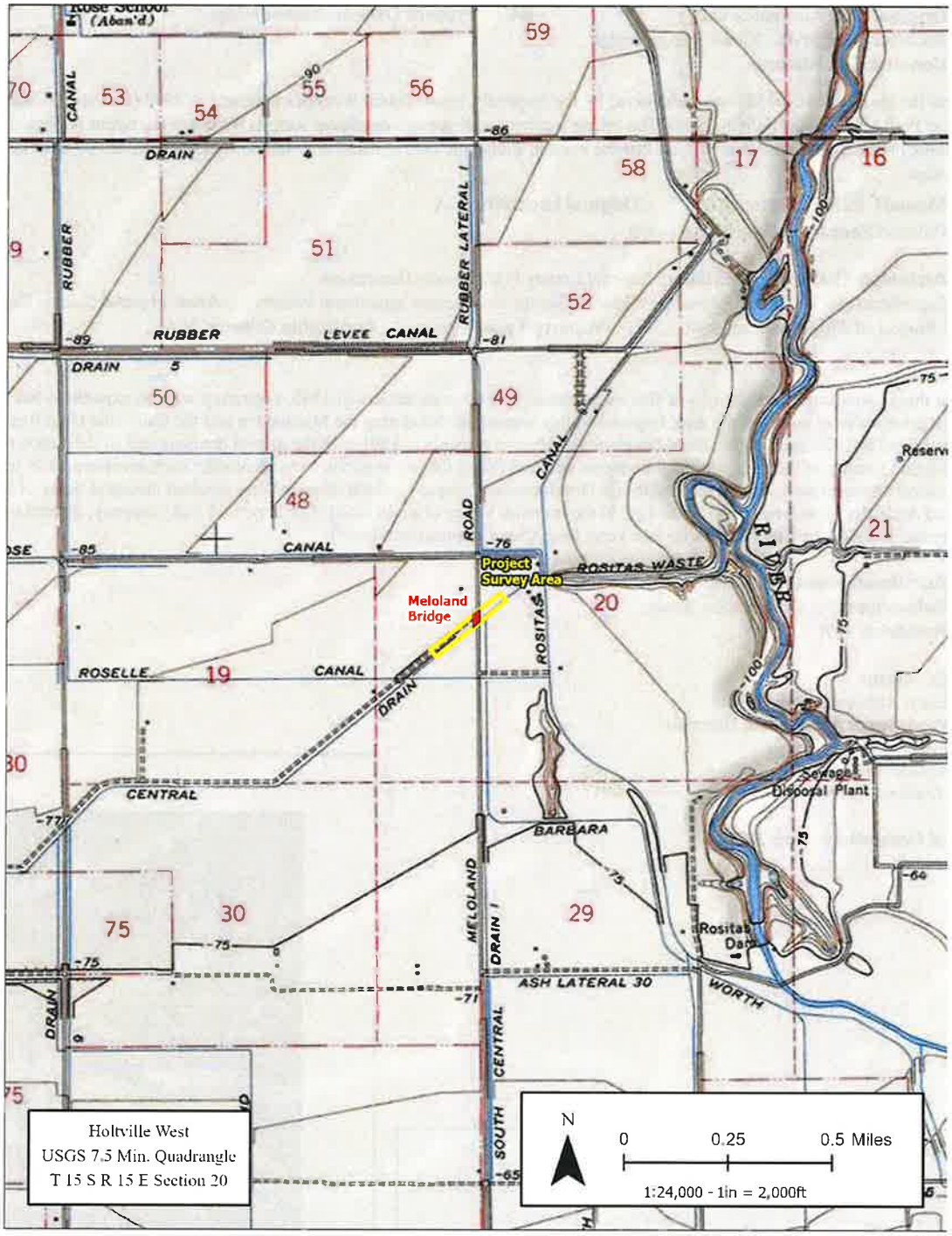
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** Meloland Bridge (No. 58C-0155)

***Map Name:** *Holtville West, Calif.* ***Scale:** 1:24,000 ***Date of map:** 1956 (rev. 1979)



*Required information

P3a. Description (continued):

Photograph 2: Overview of the bridge from the south bank of the Central Drain Canal. View northeast, April 2, 2024.

Photograph 3: Overview of the bridge on south side of the Central Drain Canal bank. View northwest, April 2, 2024.

Photograph 4: Overview of the bridge from the north bank of the Central Drain Canal. View southeast, April 2, 2024.

Photograph 5: View of Meloland Road over Meloland Bridge. View north, April 2, 2024.

Photograph 6: Detail of the underside of Meloland Bridge. View north, April 2, 2024.

Photograph 7: Detail of the underside of Meloland Bridge. View north, April 2, 2024.

Photograph 8: Detail of the underside of Meloland Bridge. View west, April 2, 2024.

Photograph 9: Detail of the underside of Meloland Bridge. Looking up, April 2, 2024.

***B10. Significance (continued):**

The Imperial Land Company and California Development Company worked in tandem to immediately create an irrigation network that connected the Colorado River to the Imperial Valley as part of a larger effort toward desert reclamation. The California Development Company finished the canal system in 1901, promoting a period of immense regional growth. The establishment of the canal system was also matched by the completion of the Southern Pacific Rail Road's branch line to Old Beach between 1902 and 1903 (Farr 1918: 15). These two pivotal developments ushered a population boom in the Imperial Valley, as agricultural laborers and merchants alike flocked to the rapidly growing community. As the community flourished, the San Diego Board of Supervisors ratified the creation of Imperial County separate from San Diego County on August 12, 1907 (Farr 1918: 18-19).

Agriculture is still the main source of revenue in Imperial County and constitutes $1.86 billion in market value of agricultural products sold (Census of Agriculture 2017). Throughout the twentieth and into the twenty-first century, the number of farms has grown to cover 521,729 acres of land as of 2017 (Census of Agriculture 2017). The population has increased due to the growth of industry, which was reported to be 179,702 as of 2020 (US Census Bureau 2024).

Holtville

W. F. Holt established the City of Holtville two years after the construction of the irrigation canal system that connected the Imperial Valley to the Colorado River. Encouraged by the resulting agricultural expansion, Holt created the No. 7 Water Company as a subsidiary to the California Development Company. The No. 7 Water Company, alongside Holt's new Holton Power Company hydroelectric plant, brought canal branches and electricity to the City of Holtville between 1904 and 1905 (El Centro Chamber of Commerce and Visitors Bureau 2000). Through the early twentieth century, the booming agricultural industry attracted a large wave of migrant labor to Holtville, which was mostly Mexican in origin. Despite discrimination, throughout the 1920s to the 1940s, the Hispanic population became the majority (Nevins 2011). Currently known as the "Carrot Capital of the World," Holtville's main form of revenue is still based in agriculture and supporting industries to agriculture (DataUSA 2024).

Timber Bridges

The earliest bridges in California were of timber construction due to the availability of material (JRP Historical Consulting Services 2004: 19). During the early twentieth century, four types of timber bridges were built in California: slab, stringer, truss, and suspension. These timber bridges were typically constructed with Douglas fir and California redwood.

The increase of automobile usage combined with advances in bridge engineering and design techniques led to a shift toward steel and concrete bridges. However, timber bridges continued to be constructed until the 1960s, although typically on secondary roads with small crossings (JRP Historical Consulting Services 2004: 19). Most of the timber bridges built in California during this period were timber stringer or girder bridges (JRP Historical Consulting Services 2003: 59).

Timber Stringer Bridges

Timber stringer bridges consist of a wood plank deck supported by heavy, square or rectangular, solid-sawn wood beams (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-81). The ends of the stringers in a timber stringer bridge rest on a single vertical support made of stone, concrete, wood, or steel piles. The roadway of a timber stringer bridge is usually timber decking with an asphalt overlay. Timber stringer bridges rarely have spans of more than 30 feet due to the lower strength of wood compared to concrete or steel. Most timber stringer bridges are one to four spans and less than 100 feet long in total.

Timber stringers are a simple bridge type that are ubiquitous throughout California and the country. The majority of the extant pre-1960 examples of timber stringer bridges in California were constructed in the 1930s through the 1950s. Timber stringer bridges were generally used for small crossings because the material was relatively inexpensive, and easy to transport and assemble. Although this bridge type was once common in California, they are more susceptible to deterioration, which requires replacement. These types of bridges have a low level of possible significance due to a lack of technical innovation or noteworthy design.

Site-Specific History

The Meloland Bridge (No. 58C-0155) was constructed in 1940 by the Imperial County Public Works Department (Caltrans 2024). The bridge is first visible on 1940 USGS maps (USGS 1940). The bridge's current path appears consistent with its historical alignment. The bridge was built to carry Meloland Road, a local rural road, over the Central Drain Canal. The Imperial Irrigation District commissioned the Central Drain Canal in 1922 to connect the Holtville main drain to a larger network of irrigation because investigations had shown that increasing groundwater levels were dampening agricultural yields (Dowd 1956: 69).

Research revealed no information about the original design and construction of the Meloland Bridge (No. 58C-0155). Due to safety concerns linked to structural deficiencies from broken support beams, the bridge has been closed since 2022 (Landeros 2022).

People

Targeted research failed to identify any direct association with the Meloland Bridge (No. 58C-0155) and the lives of significant persons in the past (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Architect and Builder

The Meloland Bridge (No. 58C-0155) was constructed in 1940 by the Imperial County Public Works Department (Caltrans 2024). Targeted research failed to identify any architect associated with the design of the Meloland Bridge (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Evaluation

The Meloland Bridge (No. 58C-0155), which carries Meloland Road over the Central Drain Canal, was constructed in 1940. According to the Caltrans Local Agency Historic Bridge Inventory, this bridge is listed as a Category 5, "Bridge not eligible for NRHP" (Caltrans 2024).

The following includes an evaluation of the Meloland Bridge (No. 58C-0155) for its eligibility for the California Register of Historical Resources.

California Register Criterion 1 – Research did not demonstrate that the Meloland Bridge (No. 58C-0155) was associated with events significant to the broad patterns of our history at the local, state, or national level. The bridge was constructed in 1940 as part of the local population increase and agricultural expansion in Imperial County. While the addition of the bridge expanded access to the Imperial Valley north of the Central Drain via Meloland Road, it is not significantly associated with the increased development of the area, or road and bridge development in Imperial County, nor is it directly or significantly associated with general bridge development at the state or national level. The Meloland Bridge is not known to have made a significant contribution to other broad patterns of local, regional, state, or national culture and history. The Meloland Bridge is a ubiquitous timber stringer bridge type in similar form in the region since the early twentieth century. As such, it is not one of the first or pioneering timber stringer bridges, nor was it significant to the development of the Central Drain Canal, which was constructed in 1922. The Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 1.

California Register Criterion 2 – To be eligible under Criterion 2, a property must be directly associated with a person's productive life during the period in which they achieved their significance. Additionally, if multiple properties are linked to the productive life of a significant person, those properties must be compared to determine which best represents the historical contributions of that individual. The Meloland Bridge (No. 58C-0155) is part of a local roadway system established, managed, and utilized by numerous public and private citizens. Although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this bridge, or that this bridge would be the best physical representation of those contributions. Therefore, the Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 2.

California Register Criterion 3 – The Meloland Bridge (No. 58C-0155), a timber stringer bridge, is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of timber stringer bridge in the region, state, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The Meloland Bridge (is not the representative work of a master, nor does it possess high artistic values. Therefore, the Meloland Bridge (No. 58C-0155) is recommended as not eligible for listing in the California Register under Criterion 3.

California Register Criterion 4 – The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the Meloland Bridge is recommended as not eligible for listing in the California Register under Criterion 4.

Conclusion – Lacking significance, the Meloland Bridge (No. 58C-0155) is recommended as ineligible for listing in the California Register. It is not a historical resource as defined by CEQA Section 15064.5(a).

Integrity – The Meloland Bridge (No. 58C-0155) is recommended as ineligible under all four California Register criteria. Therefore, an analysis of integrity is not required.

*B12. References (continued):

Ancestry.com. 2023. General subject search. Digital database. Accessed July and August 2023. https://www.ancestry.com.

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El Centro Chamber of Commerce and Visitors Bureau. 2000. "History."

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———. 2004. *Caltrans Historic Bridges Inventory Update: Timber Truss, Concrete Truss, and Suspension Bridges*, Davis, California. Prepared for State of California Department of Transportation, Environmental Program, Sacramento California. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/truss-suspension-bridges-2004-a11y.pdf/

Landeros, Marcie. 2022. "Road Conditions Focus of County Off-Site Meeting in Holtville." *Calexico Chronicle*, October 20, 2022. https://calexicochronicle.com/2022/10/20/road-conditions-focus-of-county-off-site-meeting-in-holtville/.

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Nevins, Joseph. 2011. "Holtville, California on the Day of the Dead." *NACLA*, November 2, 2011. Accessed April 2024. https://nacla.org/blog/2011/11/2/holtville-california-day-dead.

Newspapers.com. 2024. General subject search. Digital newspaper collection. Accessed April 2024. https://www.newspapers.com.

Parsons Brinckerhoff and Engineering and Industrial Heritage. 2005. *A Context For Common Historic Bridge Types*. Prepared for National Cooperative Highway Research Program, Transportation Research Council, National Research Council. https://onlinepubs.trb.org/onlinepubs/archive/NotesDocs/25-25(15)_FR.pdf/

US Census Bureau. 2024. "QuickFacts: Imperial County, California." Accessed April 2024. https://www.census.gov/quickfacts/fact/table/imperialcountycalifornia/PST045223/.

USGS (United States Geological Survey). 1940. *Alamorio, California.* 1:62,500. Electronic resource map. Accessed April 2024. https://ngmdb.usgs.gov/topoview/viewer/#.

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

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

***Resource Name or #:** Central Drain Canal

P1. Other Identifier: None

***P2.Location:** ☒ **Unrestricted**

- ***a. County** Imperial **and**
- ***b. USGS 7.5' Quad** *Holtville, Calif.* **Date** 1965 (rev. 1976) **T** 15S; **R** 15E; Sec. 19 and 20 **S.B.B.M**
- **c. Address:** Meloland Avenue at the Central Drain **City:** Unincorporated Imperial County **Zip:** 92243
- **d. UTM:** NAD 83, Zone 11S, 645461mE/33633748mN (eastern terminus at Rositas Canal)
  NAD 83, Zone 11S, 637070mE/3632078mN (approximate midpoint at Dogwood Road)
  NAD 83, Zone 11S, 645461mE/33633748mN (western terminus at Patrol Road)
- **e. Other Locational Data:** N/A

***P3a. Description:**

The Central Drain Canal, constructed in 1922, has an overall east–west alignment. The entire length of the canal (approximately 11 miles) is unlined and averages a width of 27 feet for its entire length. The canal slope is approximately 25 feet from road level to the base of the creek. The western terminus of the main Central Drain Canal is at Patrol Road, where the canal travels under the road and continues southeast as Central Drain 10. The eastern terminus of the Central Drain is at the Rositas Canal, south of Grumbles Road. Various roadways are carried over the canal by small bridges and culverts. Vegetation is present along the banks of the canal and is typical of non-engineered water-rich areas. (**Photograph 1** through **Photograph 5)** (See Continuation Sheets). ***P3b. Resource Attributes:** HP20. Canal/ Aqueduct

***P4. Resources Present:** ☒ Structure

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

Photograph 1: See P5b for the caption.

P5b. Description of Photo: Overview of the Central Drain Canal at Meloland Road. View northeast, April 2, 2024.

P6. Date Constructed/Age and Source:
☒ Historic
1922 (Barton 1922: 3)

***P7. Owner and Address:**
Imperial County
Public Works Department
155 South 11th Street
El Centro, CA 92243

***P8. Recorded by:**
Alexandria Aguilar
Michael Baker International
5 Hutton Centre Drive, Suite 500
Santa Ana, CA 92707

***P9. Date Recorded:**
April 2, 2024

***P10. Survey Type:** Intensive Pedestrian

***P11. Report Citation:**

Wood, Susan, Lea Kolesky, and Kholood Abdo. 2024. "Cultural Resources Identification Memorandum for the Meloland Road at Central Drain Bridge Replacement Project, Imperial County, California." Temecula, CA: Michael Baker International.

***Attachments:** ☐Building, Structure, and Object Record ☒Location Map ☒Sketch Map ☒Continuation Sheet ☒Linear Feature Record

***Resource Name or #** Central Drain Canal

***Map Name:** *Holtville West and El Centro, Calif.* ***Scale:** 1:24,000 ***Date of map:** 1956 (rev. 1979)

B1. Historic Name: Central Drain Canal
B2. Common Name: Central Drain Canal
B3. Original Use: Water conveyance **B4. Present Use:** Water conveyance
***B5. Architectural Style:** N/A
***B6. Construction History:**

The Central Drain Canal was constructed in 1922 by the Imperial Irrigation District (Barton 1922: 3). The canal is first visible on 1940 USGS maps (USGS 1940). The canal's current path appears consistent with its historic alignment and does not appear modified since its initial construction.

***B7. Moved?** ☒**No** **Date:** N/A **Original Location:** N/A
***B8. Related Features:** Meloland Bridge (No. 58C-0155)

B9a. Architect: Unknown **b. Builder:** Imperial Irrigation District
***B10. Significance: Theme:** Regional development; Agriculture; Water conveyance **Area:** Imperial County, California
Period of Significance: 1922 **Property Type:** Canal **Applicable Criteria:** N/A

Regional History
The area that is now Imperial County was first encountered by European settlers in 1540, beginning with an expedition led by Melchior Diaz. Although travelers were aware of the area, Imperial Valley was not settled during the Mission era and the California Gold Rush due to the area's arid climate and infertile land. Agricultural development became possible in 1891 with the natural development of the Salton Sea (Farr 1918: 3). The newfound fertility of the area prompted investors and San Diego County supervisors to reconsider their involvement in Imperial Valley. As a result, local entrepreneurs formed The California Development Company, which acquired one hundred thousand acres of land from General Guillermo Andrade, who owned most of the land in the Imperial Valley (Farr 1918: 4). The Imperial Land Company, formed by merchant Dr. W. T. Heffernan, founded the City of Imperial four years later. (See Continuation Sheets).

B11. Additional Resource Attributes: N/A
***B12. References:** See Continuation Sheets.
B13. Remarks: N/A

***B14. Evaluator:**
Lea Kolesky, Architectural Historian
Susan Wood, Senior Architectural Historian
Michael Baker International
3100 Zinfandel Drive, #125
Rancho Cordova, CA 95670

***Date of Evaluation:** April 2024

(This space reserved for official comments.)

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

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** Central Drain Canal

***Map Name:** *Holtville West and El Centro, Calif.* ***Scale:** 1:24,000 ***Date of map:** 1956 (rev. 1979)

*Required information

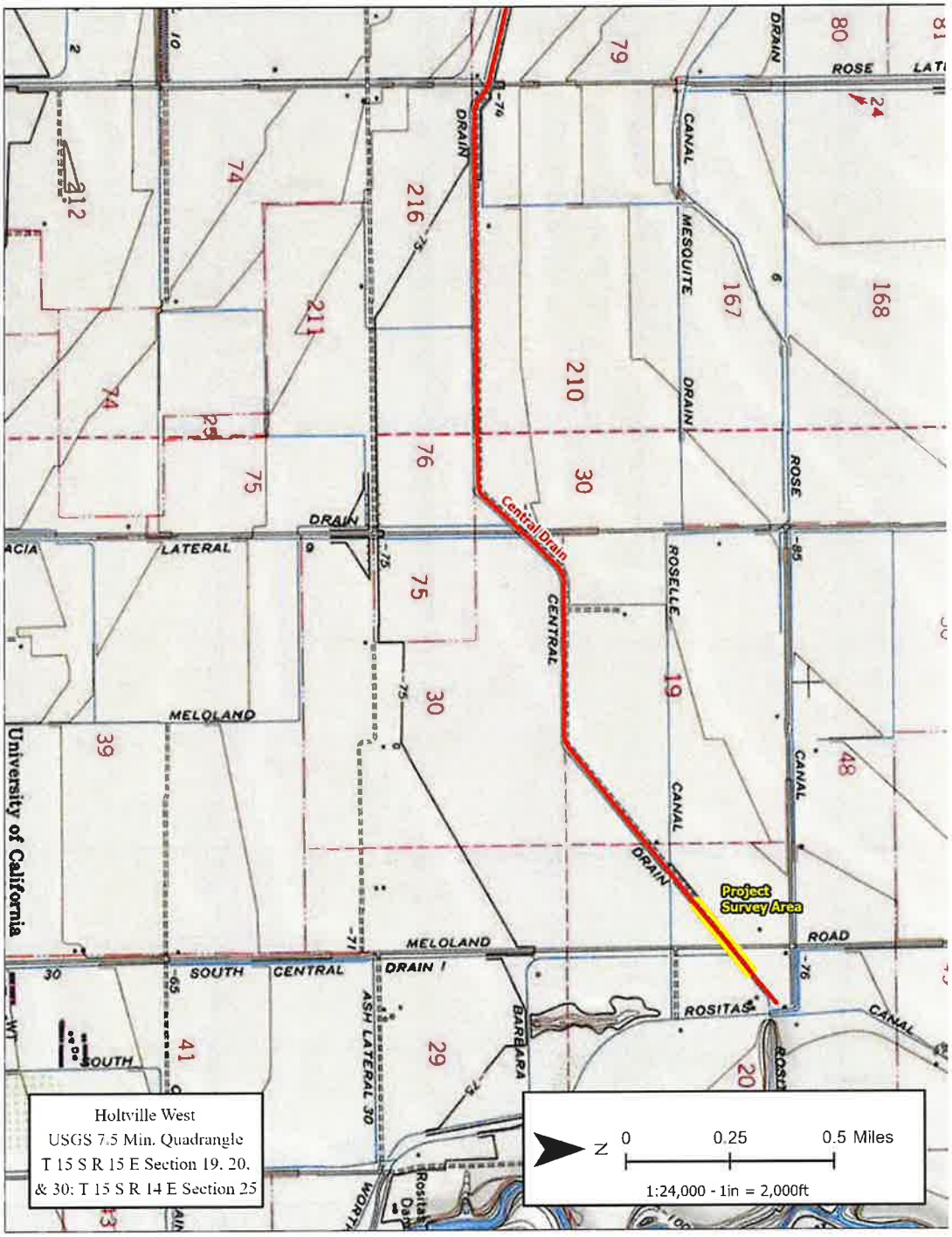
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

*Resource Name or # Central Drain Canal

*Map Name: *Holtville West and El Centro, Calif.* *Scale: 1:24,000 *Date of map: 1956 (rev. 1979)



*Required information

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

LOCATION MAP

Primary #
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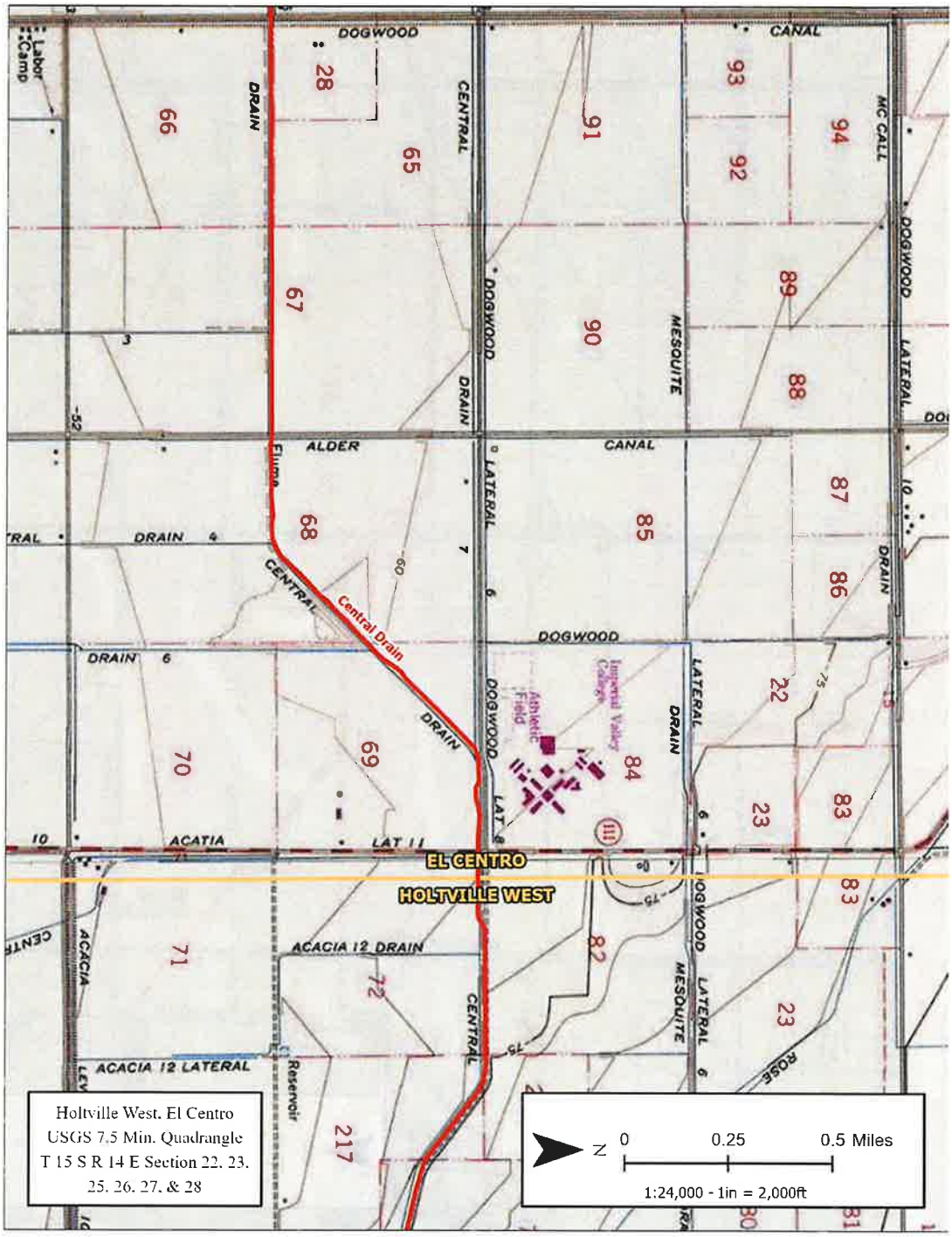

***Required information**

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

LOCATION MAP

Primary #
HRI#
Trinomial

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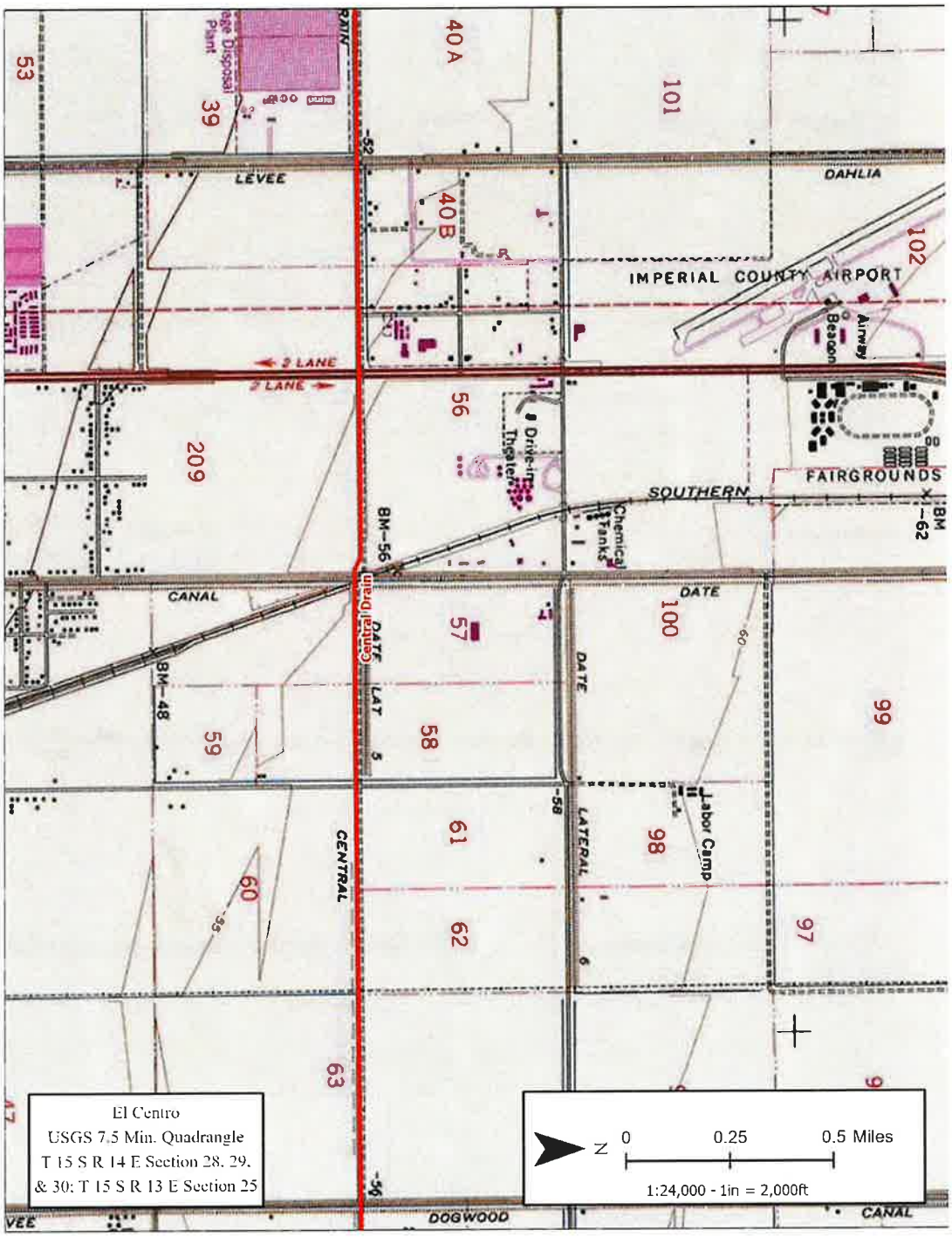


*Required information

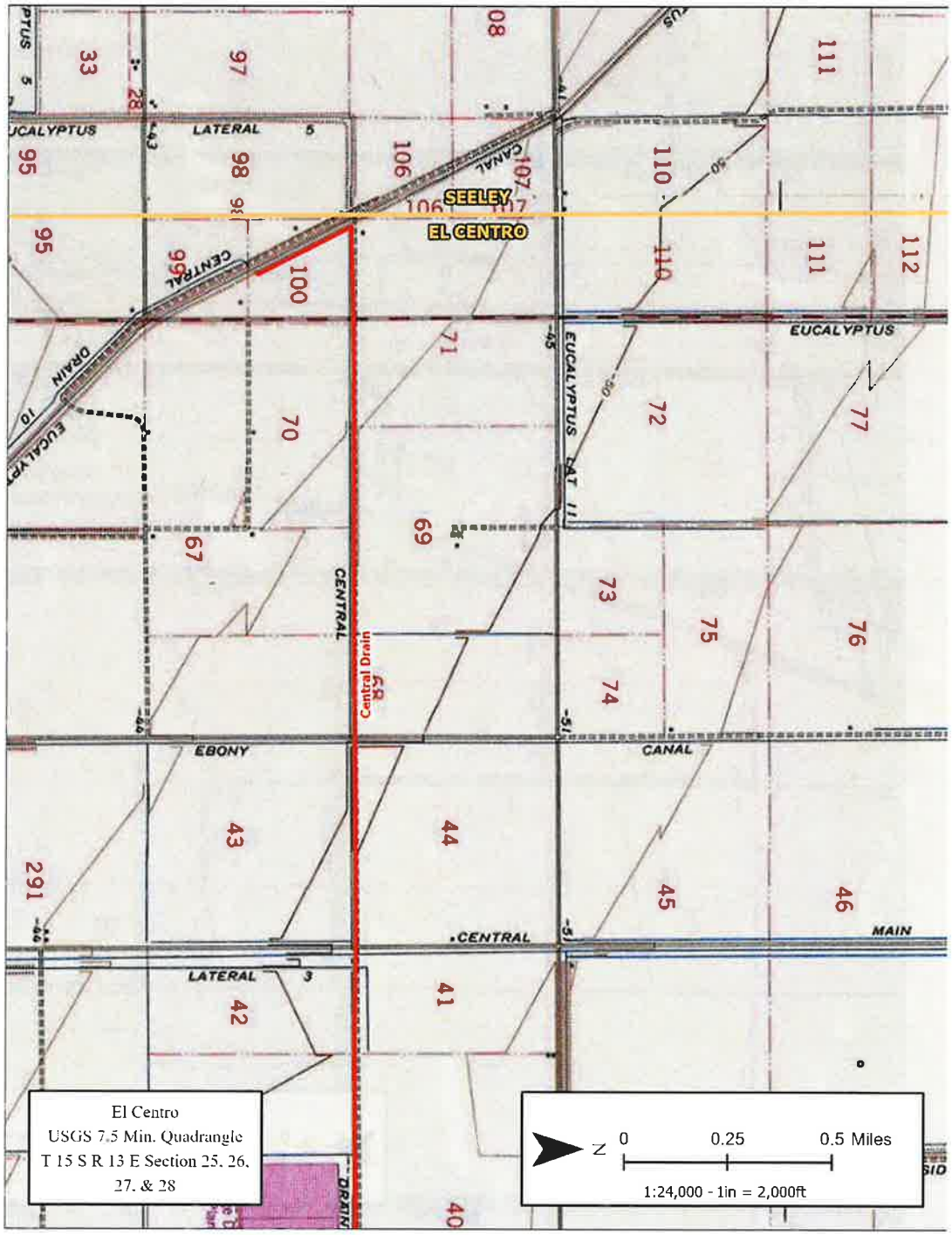
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** Central Drain Canal

***Map Name:** *Holtville West and El Centro, Calif.* ***Scale:** 1:24,000 ***Date of map:** 1956 (rev. 1979)



*Required information

P3a. Description (continued):

Photograph 2: Overview of the Central Drain Canal. View southeast, April 2, 2024.

Photograph 3: Overview of the Central Drain Canal as seen from the Meloland Bridge. View west, April 2, 2024.

Photograph 4: Overview of the Central Drain Canal. View southeast, April 2, 2024.

Photograph 5: North side of the Central Drain Canal. View northeast, April 2, 2024.

***B10. Significance (continued):**

The Imperial Land Company and California Development Company worked in tandem to immediately create an irrigation network that connected the Colorado River to the Imperial Valley as part of a larger effort toward desert reclamation. The California Development Company finished the canal system in 1901, promoting a period of immense regional growth. The establishment of the canal system was also matched by the completion of the Southern Pacific Rail Road's branch line to Old Beach between 1902 and 1903 (Farr 1918: 15). These two pivotal developments ushered a population boom in the Imperial Valley, as agricultural laborers and merchants alike flocked to the rapidly growing community. As the community flourished, the San Diego Board of Supervisors ratified the creation of Imperial County separate from San Diego County on August 12, 1907 (Farr 1918: 18-19).

Agriculture is still the main source of revenue in Imperial County and constitutes $1.86 billion in market value of agricultural products sold (Census of Agriculture 2017). Throughout the twentieth and into the twenty-first century, the number of farms has grown to cover 521,729 acres of land as of 2017 (Census of Agriculture 2017). The population has increased due to the growth of industry, which was reported to be 179,702 as of 2020 (United States Census Bureau 2024).

Holtville

W. F. Holt established the City of Holtville two years after the construction of the irrigation canal system that connected the Imperial Valley to the Colorado River. Encouraged by the resulting agricultural expansion, Holt created the No. 7 Water Company as a subsidiary to the California Development Company. The No. 7 Water Company, alongside Holt's new Holton Power Company hydroelectric plant, brought canal branches and electricity to the City of Holtville between 1904 and 1905 (El Centro Chamber of Commerce and Visitors Bureau 2000). Through the early twentieth century, the booming agricultural industry attracted a large wave of migrant labor to Holtville, which was mostly Mexican in origin. Despite discrimination, throughout the 1920s to the 1940s, the Hispanic population became the majority (Nevins 2011). Currently known as the "Carrot Capital of the World," Holtville's main form of revenue is still based in agriculture and supporting industries to agriculture (DataUSA 2024).

El Centro

The City of El Centro shared a similar origin to Holtville, as it was developed by Holt along with his business partner C.A. Barker in 1906 (City of El Centro 2024). El Centro rapidly expanded with population and industry and was incorporated into Imperial County in 1908. The development of El Centro and the rest of the Imperial Valley led to the Southern Pacific Railroad Company connecting the main line to San Diego with a branch line through El Centro in 1919 (El Centro Chamber of Commerce and Visitors Bureau 2000). The 1940s saw El Centro become the second largest city in Imperial County. Capitalizing on its central location between Highways 80 and 99, El Centro eventually became a shipping nodal point for the agricultural industry in the Imperial Valley. From the 1940s to the present, employment has switched from labor to government and trade administration, illustrating the importance of El Centro to the region's commerce and logistics (El Centro Chamber of Commerce and Visitors Bureau 2000).

Water Conveyance and Control

In 2000, the California Department of Transportation (Caltrans) published a report that provides a statewide thematic approach to surveying and evaluating the ditches and canals commonly found throughout California. This report, *Water Conveyance Systems in California: Historic Context Development and Evaluation Procedures,* asserts that "there is an increased awareness canals and other water conveyance facilities can be historically significant, and that when projects do have the potential to affect them, they need to be studied systematically" (Caltrans and JRP Historical Consulting Services 2000: 1). Caltrans notes that some level of research is required to determine the potential for historical significance of these resources, and that certain types of features are more likely than others to have potential significance, including "prehistoric or mission era irrigation systems; gold rush-era mining ditches; early or major irrigation, reclamation, or hydroelectric systems, major multi-purpose systems, flumes; tunnels, or ditches that may possess engineering, construction, or design distinction; properties associated with important events, such as critical or precedent setting litigation; and any early or prototype facilities" (1). The report also delineates resources that typically would not require evaluation, including roadside drainage ditches; municipal water, sewer, and storm drain systems; most ordinary irrigation ditches; modified natural waterways; modern pipelines; isolated or unidentified ditch segments; and canals less than 50 years old (1-2). Caltrans outlines the types of actions that could result in an effect on a water conveyance resource, including but not limited to modifying a critical element of a significant system; concrete line or pipe an important earthen ditch; introducing visual instructions that alter a canal's historic setting; rerouting a critical component of an early system; obliterating a small mining ditch; or causing other changes to an important property's essential physical features (2). Ultimately, Caltrans cautions that, due to the ubiquitous nature of this type of resource, an understanding of the potential historical significance of a water conveyance resource is key to determining the level of documentation and evaluation necessary (1-2). For the Central Drain Canal, while an important part of the Imperial Valley water conveyance and control infrastructure, it is only one part of a large system that facilitated the agricultural success of the region.

Site-Specific History

The Central Drain Canal, which originally extended from just west of Rositas Canal to the Alamo River, was constructed in 1922 by the Imperial Irrigation District (IID) (Barton 1922:3). The IID commissioned the Central Drain to connect the Holtville main drain to a larger network of irrigation because investigations had shown that increasing groundwater levels were dampening agricultural yields (Dowd 1956: 69). The IID created the Central Drain in an effort to expand Holtville's drainage system, which transported wastewater from growing agricultural and power production facilities. Although the Central Drain aided Imperial Valley with draining problematic water tables in the soil, individual farms still struggled with their varied draining issues (Dowd 1956: 70). The network surrounding the Central Drain was thus expanded with branches of farm tile drains, reaching 160 acres of farmland throughout the Imperial Valley and 234 miles throughout the entire system in 1929 (Dowd 2012: 70). The Central Drain led from the farms east until it merged into the Rositas waste line, where the water would eventually be treated at the Holtville Sewer Plant.

A 1939 hurricane and a 1940 earthquake destroyed much of the canal and drainage systems in Imperial Valley, prompting the IID to seek monetary aid from the California state government and the federal government for repairs (Dowd 1956: 85-86). During the repairs to the canal, the IID shut off water flow through the canals and drainage was limited, getting much of the needed water supply from the newly built All-American Canal. Although information is sparse about the Central Drain between 1940 to the present, currently the Central Drain is connected to 3,000 miles within the water system (Dowd 1956: 88). Today, the western terminus of the main Central Drain Canal is at Patrol Road, where the canal travels under the road and continues southeast as Central Drain 10. The eastern terminus of the Central Drain is at the Rositas Canal, south of Grumbles Road.

People

Targeted research failed to identify any direct association with the Central Drain Canal and the lives of significant persons in the past (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Architect and Builder

The canal was constructed by the Imperial Irrigation District in 1922. Targeted research failed to identify any architect associated with the design of the Central Drain Canal (Ancestry.com 2024; Newpapers.com 2024; Google.com 2024).

Evaluation

The following includes an evaluation of the Central Drain Canal for its eligibility for the California Register of Historical Resources.

California Register Criterion 1 – Research did demonstrate that the Central Drain Canal was associated with the growth and expansion of agriculture in Imperial County. The canal was constructed in 1922 as part of the response to the local population increase and to assist in the expansion of agriculture in Imperial County. While the construction of the canal was important to expanding access to and control of water in the Imperial Valley, the canal was not the first to be constructed in the Imperial Valley. It was a part of an expanding system of water infrastructure and was not directly significantly associated with the increased development of the area, nor directly or significantly associated with general agricultural development at the state or national level. The Central Drain Canal is not known to have made a significant contribution to other broad patterns of local, regional, state, or national culture and history. The Central Drain Canal is a ubiquitous unlined canal found throughout in the region since the early twentieth century. As such, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 1.

California Register Criterion 2 – To be eligible under Criterion 2, a property must be directly associated with a person's productive life during the period in which they achieved their significance. Additionally, if multiple properties are linked to the productive life of a significant person, those properties must be compared to determine which best represents the historical contributions of that individual. The Central Drain Canal is part of a water infrastructure system established, managed, and utilized by numerous public and private citizens; although these individuals may have contributed to aspects of local and regional history, there is insufficient evidence to establish a substantive connection between their specific contributions and this canal, or that this canal would be the best physical representation of those contributions. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 2.

California Register Criterion 3 – The Central Drain Canal is an unlined canal and is indistinguishable from other examples of this resource type. It was not the first of its type, nor the most distinguished example of a unlined canal in the region, state, or nation. Its design and construction do not represent a departure from standard construction practices or design for this resource type. The Central Drain Canal is not the representative work of a master, nor does it possess high artistic values. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register under Criterion 3.

California Register Criterion 4 – The built environment of the subject property is not likely to yield valuable information which will contribute to our understanding of human history because the property is not and never was the principal source of important information pertaining to significant events, people, or engineering. Therefore, the Central Drain Canal is recommended as not eligible for listing in the California Register

under Criterion 4.

Conclusion – Lacking significance, the Central Drain Canal is recommended as ineligible for listing in the California Register. It is not a historical resource as defined by CEQA Section 15064.5(a).

Integrity – The Central Drain Canal is recommended as ineligible under all four California Register criteria. Therefore, an analysis of integrity is not required.

***B12. References (continued):**

Ancestry.com. 2024. General subject search. Digital database. Accessed April 2024. https://www.ancestry.com.

Barton, C.W. 1922. "Great Drainage Project Which is Now Under Way in Imperial Valley is Explained in Detail." Imperial Valley Press, 15 November, p. 3. University of California Riverside California Digital Newspaper Collection. Accessed April 2024. https://cdnc.ucr.edu/?a=d&d=IVP19221115.2.41&e=-------en--20--1--txt-txIN--------/.

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

LINEAR FEATURE RECORD

Primary #
HRI #
Trinomial

Page 1 **of** 2 **Resource Name or #:** Central Drain Canal

L1. Historic and/or Common Name: Central Drain Canal

L2a. Portion Described: ☒ Entire Resource ☐ Segment ☐ Point Observation **Designation:** Central Drain Canal east and west of Meloland Road Bridge (No. 58C-0155) crossing

b. Location of east and west terminus of canal:
NAD 83, Zone 11S, 645461mE/33633748mN (western terminus)
NAD 83, Zone 11S, 645363mE/3633632mN (eastern terminus)
See P2d. See the sketch map for the full extent of the resource and the portion reviewed.

L3. Description:
The entire resource was documented using historical and modern maps and aerial photographs. However, only an approximately 1,116-foot portion was field inspected and photo documented. The portion of the unlined earthen canal field recorded included a section directly east and west of Meloland Road. This portion of the canal averages 30 feet in width. The canal slope is approximately 25 feet from road level to the base of the creek. Water depth was estimated to be 5 feet at the time of the survey. No concrete lining, drainage pipes, or tunnels were observed within the portion of the canal field inspected.

L4. Dimensions:
a. Top Width Approximately 30 feet
b. Bottom Width Unknown
c. Height or Depth Approximately 5 feet at recording
d. Length of Segment Approximately 1,116 feet

L5. Associated Resources:
Meloland Bridge at Meloland Road and Central Drain (No. 58C-0155) within the portion surveyed.

L6. Setting:
The Central Drain Canal bisects Imperial County roughly between Holtville and El Centro. The landscape in unincorporated Imperial County is primarily agricultural lands, while Holtville and El Centro are developed urban areas.

L7. Integrity Considerations:
See the BSO for evaluation of significance as of April 2024.

L8b. Description of Photo, Map, or Drawing

L8a. Photo, Map or Drawing

Photograph 1: See L8b for caption.

Overview of Meloland Bridge (No. 58C-0155) over subject segment of the Central Drain Canal. View northeast, April 2, 2024. See BSO for additional photos and Primary Record for Maps.

L9. Remarks:
See BSO for a full description and evaluation of the resource.

L10. Form Prepared

by:

Lea Kolesky, Architectural Historian
Susan Wood, Architectural Historian
Michael Baker International
3100 Zinfandel Drive, #125
Rancho Cordova, CA 95670

L11. Date: April 2024

IS#23-0034

PROJECT DESCRIPTION

EEC ORIGINAL PKG

Meloland Road Bridge at Central Drain

County Project No. 6838

Project Description

Project Purpose and Objectives

The Imperial County Public Works Department (County) proposes to replace the existing Meloland Road Bridge over Central Drain with a pipe crossing. The project includes the demolition, removal and disposal of the existing bridge with replacement with a pipe crossing and the roadway to be reconstructed on the same alignment. This bridge has been closed to traffic since ____ .

The bridge demolition and road replacement work would be conducted by the County under private contract, and the pipe crossing work would be conducted by the Imperial Irrigation District (IID) who operates and maintains the Central Drain. CEQA will be addressed to cover the entire project scope.

The purpose of the proposed project is to replace the existing, 1940's structurally deficient wood bridge with a pipe crossing that would satisfy current design and seismic standards, and ensure drain flow is not impeded. The Central Drain is a critical agricultural drain operated and maintained by the Imperial Irrigation District. This drain not only serves the agricultural community, but is also the main drain that serves the entire El Centro urban area, which then discharges to the Alamo River, located approximately eight miles east of El Centro.

Meloland Road, is a north-south major collector road which serves both, the agricultural community, and the Holtville area via Evan Hewes Highway north to Worthington Road to provide connectivity to Imperial and north El Centro.

The primary objective of the proposed project is to provide a safe, reliable crossing for the public that meets all current design standards.

Project Funding and CEQA Jurisdiction

The proposed project would be funded through the local Imperial County's Measure D, Local Transit Authority (LTA) fund account and/or SB1 funding.

The County is the lead agency under the California Environmental Quality Act (CEQA), with the authority to authorize construction of the project. The County would obtain an encroachment permit from the Imperial Irrigation District (IID) for work within the IID right-of-way (ROW). The pipe crossing design and construction would be performed by the IID with the bridge removal and disposal work, along with the road reconstruction work would be performed by the County

through a public bid process. The appropriate level of review under CEQA is expected to be through an Initial Study/Mitigated Negative Declaration to be prepared pursuant to CEQA.

Project Location

The project site is located in Imperial County in portions of Sections 19 and 20, of Township 15 S Range 15 E.

The existing bridge is located on Meloland Road at the Central Drain, about 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of the city of Holtville, California.

Pipe Crossing and Approach Road

The proposed pipe crossing could be a large diameter pipe or several pipes to convey Central Drain flows. The design would be determined by the IIID. The existing two-lane road way would occupy the same alignment as the existing roadway along the existing bridge. The proposed Meloland Road approach roads would include two 12-foot-wide lanes, two 4-8 foot wide unpaved shoulders, and a 55-mile-per-hour (mph) design speed.

The pipe(s) crossing would include inlet and outlet concrete headwalls to maintain the pipe integrity. It is noted that there are similar pipe crossings approximately 1000' upstream, and approximately 900' downstream of this location. The Central Drain at this location is near the end of the system, and discharges directly into the Rositas Waste Drain approximately 900 feet downstream, which then discharges into the Alamo River approximately ¼ mile from Meloland Road.

Drain Bank Access Roads

Existing Central Drain banks/access roads that intersect with Meloland Road within the project area would not be impacted with a pipe crossing. IID access to the drain bank roads would be maintained throughout construction.

Site Preparation

Vegetation would be removed during site preparation to clear the channel for the placement of pipe and headwalls. This may be performed after bridge demolition/removal.

Staging Area Preparation

Staging areas would be used to store project materials and equipment throughout construction. Staging areas include existing Meloland Road and IID drain bank areas. Traffic control, barricades and construction sign plans would remain in place, and be prepared to ensure no public traffic enters this area during construction.

Bridge Demolition/Removal

The existing bridge and associated piles would be demolished and removed prior to vegetation removal and construction of the pipe crossing Davis Road replaced. Demolition activities would be designed to minimize impacts to the drain. Removal of the existing bridge wood pile

supports will consist of breaking them off at or just under the drain bottom surface level. The piles are wood and lateral load imposed by a large excavator will fracture the piles near or below the drain bottom. Once the piles are broken off, the excavator, with a chain, will lift the pile out of the drain and they will be transported to an appropriate disposal facility. Using a temporary sheet pile containment system and removing the temporary sheet piles would result in a larger amount of "dirty water" than breaking them off without containment. The abutment piles, most of which are exposed due to drain bank erosion, will be removed in a similar manner. It is possible that the pipe crossing work will require a drain bypass either by gravity flow, or pumping. During such drain bypass, the bridge abutment/pile demolition can also be staged, and any debris simply removed with excavator.

All equipment required for removal of the existing bridge abutments/piles would be staged on and operated from the banks of the drain and or Meloland Rd. and not in the drain during flow, unless a drain bypass is engaged.

Installation of New Pipe Crossing & Road Replacement

After bridge & pile demolition, removal, disposal and vegetation removal, excavation for the installation of the new pipe and headwalls would occur along with drain bypass (e.g., gravity and/or pumping). The bypass channel would allow the drain flow to bypass the pipe work. The bypass is to be constructed adjacent to the work area within the existing IID drain right of way and will be temporary until the headwalls and pipe crossing work is substantially complete. The bypass would then be stopped and the area backfilled so that drain flow will resume within the pipe crossing.

Once the pipe and headwalls are in place, drain bypass removed, the pipes will be backfilled and compacted to the road subgrade elevation. After the pipe crossing work is complete, the Meloland Road structural section will be placed, including aggregate base, asphalt concrete and striping to tie into each side of the crossing to match existing paved surfaces, then the road crossing can be opened to traffic. Road drainage will be reviewed and any design to accommodate the road drainage safely to the Central Drain will be addressed.

Water Consumption

The proposed project would require water for dust control during ground disturbing and earth compaction activities. Water would likely be obtained from a nearby IID canal, through the IID encroachment permit process.

Traffic Control and Detour

Traffic along Meloland Road has been detoured since 2016, as the bridge is currently closed. Construction, when initiated will maintain the existing road closure and detour in place until the project road crossing has been completed, and then the road would be opened.

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
- Hot-mix asphalt spreader and roller
- Dump trucks
- Misc power/hand tools
- Personal trucks and vehicles
- Front End Loader
- Concrete trucks and pumps
- Motor Grader
- Sweepers
- Flatbed trucks

Construction activities for Phase 1 would begin during 2024/2025 and last approximately 3 months. Construction within the Central Drain 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. Any lighting used at night would be shielded and directed downward in the work areas.

Right-of-Way

No new right of way is required as all work would occur within existing County road and IID drain rights of way. All staging during construction would also occur within existing County road and/or IID drain right of way. The proposed Meloland Road crossing and approach roads would include two 12-foot-wide lanes, two 4-8 foot wide unpaved shoulders.

Permitting

The proposed project may require permits and approvals prior to construction. It is anticipated that focused environmental studies will be performed in coordination with these permits.

Permits and approvals currently anticipated may include the following:

Permit or Approval	Agency	Function
1602 Streambed Alteration Agreement	California Department of Fish and Wildlife (CDFW)	For work in S Drain to replace the Davis Road Bridge.
Waste Discharge Requirements	Colorado River Regional Water Quality Control Board	For work in S Drain to replace the Davis 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 S Drain 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 during construction and permanent use for proposed pipe crossing & road improvements.

END

EEC ORIGINAL PKG

EEC ORIGINAL PKG

EEC ORIGINAL PKG

COMMENT LETTERS

150 SOUTH NINTH STREET
EL CENTRO, CA 92243-2850

TELEPHONE: (442) 265-1800
FAX: (442) 265-1799

AIR POLLUTION CONTROL DISTRICT

May 29, 2024

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

SUBJECT: Initial Study 23-0034 – Imperial County Public Works Department

Dear Mr. Minnick:

The Imperial County Air Pollution Control District (Air District) would like to thank you for the opportunity to review and comment on Initial Study (IS) 23-0034 (Project). The project proposes the demolition, removal, and disposal of the existing Meloland Road Bridge over Central Drain and replacing it with a pipe crossing with the roadway reconstructed in the same alignment. The project is located on Meloland Rd. approximately 1.9 miles north of Evan Hewes Highway and approximately 4 miles west of Holtville, on the parcel identified with Assessor's Parcel Number 045-490-014.

The Air District reminds the applicant the project must comply with all Air District rules and regulations and would emphasize Regulation VIII, a collection of rules designed to maintain fugitive dust emissions below 20% visual opacity. As part of compliance with Regulation VIII, the Air District requests the applicant submit a Construction Notification Form to our office 10 days prior to earthmoving beginning.

The Air District also informs the applicant that portable combustion equipment, such as generators, may require a permit. Equipment may be permitted under the California Air Resources Board's Portable Equipment Registration Program (PERP); if equipment is not PERP registered it may require an Air District permit. The applicant should submit an application for engineering review if the equipment is not PERP registered and does not have an active Air District permit. During the review they will coordinate with an Air District permitting engineer to determine the permitting requirements of the project.

For your convenience, all Air District rules and regulations can be accessed online at https://apcd.imperialcounty.org/rules-and-regulations and construction forms can be accessed at

https://apcd.imperialcounty.org/planning/#construction. Should you have any questions or concerns please feel free to contact the Air District by calling our office at (442) 265-1800.

Respectfully,

Ismael Garcia
Environmental Coordinator

Reviewed by,
Monica Soucier
APC Division Manager

COUNTY EXECUTIVE OFFICE

Miguel Figueroa
County Executive Officer
miguelfigueroa@co.imperial.ca.us
www.co.imperial.ca.us

County Administration Center
940 Main Street, Suite 208
El Centro, CA 92243
Tel: 442-265-1001
Fax: 442-265-1010

May 21, 2024

TO: Rocio Yee, Planning and Development Services Department

FROM: Rosa Lopez-Solis, Executive Office

SUBJECT: Comments – Meloland Road Bridge - APN 045-490-014

The County of Imperial Executive Office is commenting on Meloland Road Bridge - APN 045-490-014 project. The Executive Office would like to inform the County of Imperial Department of Public Works and its private contractor of conditions and responsibilities should the applicant seek a Conditional Use Permit (CUP). The conditions commence prior to the approval of an initial grading permit and subsequently continue throughout the permitting process. This includes, but not limited to:

- Sales Tax Condition. The permittee is required to have a Construction Site Permit reflecting the project site address, allowing all eligible sales tax payments are allocated to the **County of Imperial, Jurisdictional Code 13998**. The permittee will provide the County of Imperial a copy of the CDTFA account number and sub-permit for its contractor and subcontractors (if any) related to the jobsite. Permittee shall provide in written verification to the County Executive Office that the necessary sales and use tax permits have been obtained, prior to the issuance of any grading permits.
- Construction/Material Budget: Prior to a grading permit, the permittee will provide the County Executive Office a construction materials budget: an official construction materials budget or detailed budget outlining the construction and materials cost for the processing facility on permittee letterhead.

Should there be any concerns and/or questions, do not hesitate to contact me.

Imperial County Planning & Development Services
Planning / Building

Jim Minnick
DIRECTOR

MAY 21st , 2024
REQUEST FOR REVIEW
AND COMMENTS

The attached project and materials are being sent to you for your review and as an early notification that the following project is being requested and being processed by the County's Planning & Development Services Department. Please review the proposed project based on your agency/department area of interest, expertise, and/or jurisdiction.

To:

County Agencies

☒ County Executive Office – Rosa Lopez/ Miguel Figueroa / Bari Smith Bean

☒ Public Works – Carlos Yee/John Gay

☒ Caltrans District – Maurice Eaton / Kimberly Dodson / Roger Sanchez

State Agencies/Other

☒ IC Sheriff's Office – Robert Benavidez/Fred Miramontes/Ryan Kelley

☒ Board of Supervisors – John Hawk District #5

☒ Ag. Commissioner – Margo Sanchez/Antonio Venegas/ Ashley Jauregui/ Jolene Dessert

Cities/Other

☒ IC Fire/OES Office – Andrew Loper/ Sal Flores/Robert Malek / David Lantzer

☒ EHD – Jeff Lamoure / Jorge Perez / Vanessa Ramirez/Mario Salinas/ Alphonso Andrade

☒ APCD – Jesus Ramirez/Belen Leon-Lopez/ Monica Soucier

☒ IID – Donald Vargas

From: Rocio Yee Planner I - (442) 265-1736 or Rocioyee@co.imperial.ca.us

Project ID: Initial Study 23-0034

Project Location: POR SE4 OF NW4& OF E2 OF SW4& OF SW4 OF SE4 SEC20 15-15 21.40 APN: 045-490-014

Project Description: Applicant is proposing to replace the existing Meloland Road Bridge over Central Drain with pipe crossing. The project includes the demolition, removal, and disposal of the existing bridge with replacement with a pipe crossing and the roadway to be reconstructed on the same alignment. This bridge has been since 2016.

Applicants: Public Works

Comments due by: **May 30th, 2024, at 5:00PM**

COMMENTS: *(attach a separate sheet if necessary)* (if no comments, please state below and mail, fax, or e-mail this sheet to Case Planner)

No comment

Name: Antonio Venegas Signature: Antonio Venegas Title: Agricultural Biologist/Standards Specialist IV

Date: 05/21/2024 Telephone No.: (442)265-1500 E-mail: Antoniovenegas@co.imperial.ca.us

RY\JG\S:\Clerical\Clerical Forms\Request for Comments Templates\Request for Comments .docx