☐ **NEGATIVE DECLARATION**

☒ **MITIGATED NEGATIVE DECLARATION**

***Initial Study & Environmental Analysis***
***for:***

# New River Improvement Project

# UA 2020-06

*Prepared by:*


**CITY OF CALEXICO**

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**April 2020**

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# TABLE OF CONTENTS

PAGE

SECTION 1 INTRODUCTION ..... 5
1.1. PURPOSE ..... 5
1.2. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS ..... 5
1.3. INTENDED USES OF INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION ..... 5
1.4. CONTENTS OF INITIAL STUDY and MITIGATED NEGATIVE DECLARATION ..... 6
1.5. SCOPE OF ENVIRONMENTAL ANALYSIS ..... 6
1.6. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE ..... 7

SECTION 2 ENVIRONMENTAL CHECKLIST ..... 8
2.1. PROJECT SUMMARY, LOCATION, AND ENVIRONMENTAL SETTING ..... 11
2.2. ENVIRONMENTAL ANALYSIS ..... 39
2.2.1. AESTHETICS ..... 39
2.2.2. AGRICULTURE AND FORESTRY RESOURCES ..... 41
2.2.3. AIR QUALITY ..... 43
2.2.4. BIOLOGICAL RESOURCES ..... 48
2.2.5. CULTURAL RESOURCES ..... 61
2.2.6. GEOLOGY AND SOILS ..... 65
2.2.7. GREENHOUSE GAS EMISSIONS ..... 69
2.2.8. HAZARDS AND HAZARDOUS MATERIALS ..... 72
2.2.9. HYDROLOGY AND WATER QUALITY ..... 76
2.2.10. LAND USE AND PLANNING ..... 80
2.2.11. MINERAL RESOURCES ..... 82
2.2.12. NOISE ..... 83
2.2.13. POPULATION AND HOUSING ..... 87
2.2.14. PUBLIC SERVICES ..... 88
2.2.15. RECREATION ..... 90
2.2.16. TRANSPORTATION/TRAFFIC ..... 91
2.2.17. TRIBAL CULTURAL RESOURCES ..... 93
2.2.18. UTILITIES AND SERVICE SYSTEMS ..... 95

SECTION 3 MANDATORY FINDINGS OF SIGNIFICANCE ..... 98

SECTION 4 PREPARERS ..... 100

SECTION 5 REFERENCES ..... 102

SECTION 6 FINDINGS ..... 104

## List of Figures


Figure 1 Regional/Local Vicinity Map ..... 16
Figure 2A Overview – Proposed Improvements ..... 18
Figure 2B Construction Access and Staging Plan ..... 20
Figure 3A Trash Screen/Raking System ..... 22
Figure 3B Trash Screen/Raking System ..... 24
Figure 3C Bypass Encasement – Overview ..... 26
Figure 3D Pumpback Station ..... 28
Figure 3E Energy Dissipater ..... 30
Figure 4A Site Photographs ..... 32
Figure 4B Site Photographs ..... 34
Figure 4C Site Photographs ..... 36
Figure 5 Artificial Burrow Locations ..... 59


## List of Tables


Table 2.2.3-1 Construction Air Emissions ..... 45
Table 2.2.3-2 Long-Term Operational Air Emissions ..... 46
Table 2.2.4-1 Vegetation Communities and Land Cover Types in the BSA (Existing Acreages) ..... 48
Table 2.2.4-2. Jurisdictional Features in the BSA (Existing Acreages) ..... 56
Table 2.2.7-1 Estimated Greenhouse Gas Emissions ..... 70
Table 2.2.12-1 Maximum Noise Levels Generated by Construction Equipment ..... 84
Table 2.2.12-2 Typical Vibration Levels for Construction Equipment ..... 85


## List of Appendices


**Appendix A** Improvement Plans (Provided on CD)
**Appendix B** Air Quality/Greenhouse Gas Technical Data
**Appendix C-1** Biological Technical Letter Report
**Appendix C-2** Jurisdictional Delineation Report
**Appendix D** Cultural Resources Study
**Appendix E** Geotechnical Report
**Appendix F** Hazardous Records Database Results
**Appendix G** Noise Technical Data

# SECTION 1
# INTRODUCTION

## 1.1. PURPOSE

This document is a ☐ policy-level ☒ project-level Initial Study for the evaluation of potential environmental impacts resulting with the proposed New River Improvement Project(refer to Figures 1 through 4C).

## 1.2. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS

As defined by Section 15063 of the State's California Environmental Quality Act (CEQA) Guidelines, 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 and Mitigated Negative Declaration were 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 CEQA Guidelines; and the regulations, requirements, and procedures of any other responsible public agency or an agency with jurisdiction by law.

The City of Calexico is designated as 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 city.

## 1.3. INTENDED USES OF INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

This Initial Study and Mitigated Negative Declaration are informational documents intended to inform City of Calexico decision-makers, other responsible or interested agencies, and the general public of potential environmental effects of the proposed project. 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 Mitigated Negative Declaration prepared for the project will be circulated for a period of 30 days for public and agency review and comments. At the conclusion of the circulation period, if comments are received, the city 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.

## 1.4. CONTENTS OF INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

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

### SECTION 1

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

### SECTION 2

**ENVIRONMENTAL CHECKLIST** contains the environmental checklist form. The form presents results of the environmental evaluation for the proposed project and those issue areas that would have either a significant impact, a potentially significant impact, or no impact.

**PROJECT SUMMARY, LOCATION, AND ENVIRONMENTAL SETTING** describes the proposed project. A description of discretionary approvals and permits required for project implementation is also included. It also identifies the location of the project and includes a general description of the surrounding environmental setting.

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

### SECTION 3

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

### SECTION 4

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

### SECTION 5

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

### SECTION 6

**FINDINGS** confirms the appropriate CEQA document to be adopted.

## 1.5. SCOPE OF ENVIRONMENTAL ANALYSIS

For the 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:

1. **No Impact:** A "No Impact" response is adequately supported if the impact simply does not apply to the proposed project.
2. **Less Than Significant Impact:** The proposed project will have the potential to impact the environment. These impacts, however, will be less than significant; no additional analysis is required.
3. **Less Than Significant with Mitigation Incorporated:** This response applies where the incorporation of mitigation measures reduces an effect from a Potentially Significant Impact to a Less Than Significant Impact.
4. **Potentially Significant Impact:** The response applies when the proposed project 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.

## 1.6. TIERED DOCUMENTS AND INCORPORATION BY REFERENCE

Information, findings, and conclusions contained in this document are based on the incorporation by reference of tiered documents, 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 in 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 CEQA Guidelines Section 15152(b), 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, CEQA Guidelines Section 15152(d) 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 an EIR or Negative Declaration 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 following documents:

- City of Calexico General Plan Update, Albert A. Webb Associates, February 2007
- City of Calexico General Plan EIR, Albert A. Webb Associates, 2006

## SECTION 2
## ENVIRONMENTAL CHECKLIST

1. **Project title:** New River Improvement Project
2. **Lead agency:** City of Calexico, 608 Heber Avenue, Calexico, CA 92231
3. **Contact person and phone number:** David Dale, PE, PLS; City Manager; (760) 768-2110
4. **Address:** City of Calexico, 608 Heber Avenue, Calexico, CA 92231
5. **E-mail:** ddale@calexico.ca.gov
6. **Project location:** The proposed project site is located in and also directly south of the New River, within the City of Calexico, directly north and east of Calexico International Airport.
7. **Project sponsor's name and address:** City of Calexico
8. **General Plan designation:** OS – Open Space
9. **Zoning:** OS – Open Space
10. **Description of project:**

    The proposed project involves designing and completing infrastructure components to address the public health threat that the condition of the New River poses to people in the Calexico area. The project includes (1) a trash screen at the international boundary with Mexico; (2) encasing the river from a point downstream of the international boundary to a point downstream from where the river crosses the west branch of the All-American Canal; and (3) a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international boundary with Mexico.

11. **Surrounding land uses and setting:**

| ADJACENT LAND USE, GENERAL PLAN LAND USE DESIGNATION, AND ZONING | | | |
|---|---|---|---|
| **Location** | **Current Land Use** | **General Plan Land Use Designation** | **Zoning** |
| North | Low Density Residential | Open Space, Low Density Residential | R1 – Residential |
| South | Calexico International Airport | Airport | IND – Industrial |
| East | Undeveloped | Open Space with Airport Expansion Overlay | SPA – Specific Plan Area |
| West | Industrial | Industrial | IR – Industrial Rail Served |

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

| REQUIRED APPROVALS AND PERMITS | | |
|---|---|---|
| **Permit/Action Required** | **Approving Agency** | **Lead/Responsible/Trustee Agency Designation** |
| Improvement Plans | City of Calexico (City) | Lead Agency |
| Grading Permit | City | Lead Agency |
| Mitigated Negative Declaration | City | Lead Agency |
| Storm Water Quality Management Plan (SWQMP) | City | Lead Agency |
| Clean Water Act Permit (Section 404) | US Army Corps of Engineers (USACE) | Responsible Agency |
| Streambed Alteration Agreement (Section 1603) | California Department of Fish and Wildlife (CDFW) | Trustee Agency |
| Clean Water Act Permit (Section 401) | Regional Water Quality Control Board (RWQCB) (Colorado River Basin – Region 7) | Responsible Agency |
| General Construction Storm Water Permit | RWQCB | Responsible Agency |

13. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?**

Notification has been sent to the appropriate California Native American tribes. The consultation process remains ongoing as of the commencement of the 30-day public review period for the New River Improvement Project Mitigated Negative Declaration.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the project. While these environmental factors would potentially be affected by the project, mitigation measures have been identified for each resource area where applicable to reduce such impacts to less than significant. Resource areas involving at least one impact that is "Less than Significant with Mitigation Incorporated" are indicated below and by the checklists on the following pages.

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

## DETERMINATION (MANDATORY FINDINGS OF SIGNIFICANCE):

On the basis of the environmental analysis and review completed as part of this Initial Study's preparation:

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

☒ I find 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.

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

☐ I find 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.

☐ I find 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.

David Dale, PE, PLS
City Manager

4/21/20
Date

## 2.1. PROJECT SUMMARY, LOCATION, AND ENVIRONMENTAL SETTING

The purpose of this Initial Study is to evaluate the potential environmental effects associated with the New River Improvement Project (project) to improve the existing environmental and public health issues of the New River located in Calexico, California.

### PROJECT BACKGROUND

The State of California's Clean Water Act (CWA) Section 303(d) lists the New River as impaired by numerous constituents and is a State of California priority for cleanup purposes. The New River runs north from Mexico and is threatened by discharges of waste and/or storm water runoff from domestic, agricultural and industrial sources. Such pollution has the potential to affect public health, weaken healthy ecosystems for wildlife, and contribute to water quality problems as the New River flows to the Salton Sea. To address point and nonpoint sources of pollution for the New River, a New River Improvement Project Strategic Plan (Plan) was issued in 2011 and amended in 2016. The Plan identifies recommendations to address public health threats in the Calexico area of the New River. Critical infrastructure components of these recommendations include the following:

- Trash screen near the international boundary with Mexico to remove trash from the New River prior to the diversion structure.
- New River bypass encasement to divert the New River into an underground conveyance facility near 2nd Street and discharge it back to the New River east of the All-American Canal.
- New River pump-back system to use treated wastewater from the City of Calexico Wastewater Treatment Plant to supplant diverted river flow within the existing river alignment downstream of the river diversion structure.

### PROJECT LOCATION

The City of Calexico is located in the southernmost portion of Imperial County, California, along the United States/Mexico international boundary. The city is approximately 230 miles southeast of Los Angeles and 125 miles east of San Diego and is immediately adjacent to the City of Mexicali, Baja California, Mexico. Calexico is in a developing rural area with agricultural fields surrounding the city to the north, east, and west. Refer to Figure 1, Regional/Local Vicinity Map, and Figure 4A to 4C, Site Photographs.

The project site generally follows the alignment of the New River starting at the intersection of 2nd Street and the New River to the eastern boundary of Calexico, just east of the All-American Canal. All improvements are proposed north of the international boundary and on the north side of the Calexico Wastewater Treatment Plant (WWTP) adjacent to the New River; refer to Figure 2A, Overview - Proposed Improvements. The proposed project covers a distance of approximately 8,100 linear feet.

### PROJECT SUMMARY

#### Project Characteristics

The proposed project consists of three primary components: (1) a trash screen at the international boundary with Mexico (see Figures 3A and 3B, Trash Screen/Raking System); (2) encasing the river from a point downstream of the international boundary to a point downstream of the eastern boundary of Calexico in order to bypass the populated southern area of the city (see Figure 3C, Bypass Encasement - Overview).; and (3) a pump-back system to take treated wastewater from the existing Calexico WWTP and discharge it into the New River channel at a point near the proposed river diversion and encasement structure (see Figure 3D, Pumpback Station) Refer also to Figure 2A, Overview - Proposed Improvements, which shows the intended improvements to be constructed with the project. A full set of improvement plans for the project has been prepared and is provided on CD as Appendix A of this document.

### *New River Trash Screen*

The New River trash screen (NRTS) will generally consist of a new automatically raked screen located in the improved New River concrete channel structure on the United States side of the international boundary with Mexico, at a point located south of the 2nd Street bridge and upstream of the proposed New River diversion structure and pump-back system; refer to Figures 3A and 3B. The purpose of the NRTS is to remove up to one ton per day of floating and submerged trash from the New River. The NRTS is expected to meet security requirements of the US Customs and Border Protection/US Department of Homeland Security.

The NRTS will be integrally incorporated into a new rectangular reinforced concrete channel structure that will be constructed within the existing New River channel. The NRTS will also help consolidate the new diversion structure with the proposed pump-back system. The new channel structure will include entry and exit transition sections to allow a smooth transition between the geometry of the existing natural trapezoidal channel to that of the rectangular section. The rectangular section will include an integral cutwater designed to split the channel flow into two equally sized fixed trash screens and provide support for the overhead trolley-mounted raking system structure. The overall design capacity of the NRTS and improved concrete channel will meet Federal Emergency Management Act (FEMA) 100-year flow requirements.

### *New River Diversion Structure*

Before flows in the New River can be conveyed via the proposed bypass encasement, the flows must first be captured. The proposed diversion structure would span the full width of the New River and would be integrated with the trash screen and the pump-back system to the fullest extent practicable. The side wall inlet from the diversion structure would include an integral slide gate with a seismic actuator to allow automatic isolation of the encasement in case of a significant earthquake of sufficient magnitude to cause potential damage to the downstream encasement pipeline.

### *New River Bypass Encasement Infrastructure*

The New River bypass encasement would intercept flows just north of the International Boundary in an underground pipe, carrying flows along the southern edge of the river bank, north of the City of Calexico WWTP and continuing west along the southern edge of the riverbank to outfall just east of the All-American Canal. The river bypass encasement would be designed to capture an average flow of 160 cubic feet per second (cfs). Flows greater than 160 cfs would continue to be carried in the New River. Refer to Figure 3C, Bypass Encasement – Overview.

Applicable codes and standards for the bypass encasement include those of the following agencies:

- City of Calexico (design standards)
- Imperial Irrigation District
- Bureau of Engineers
- City of San Diego
- County of San Diego

### *New River Bypass Encasement Alignment*

The City of Calexico approved a bypass encasement alignment that commences at the diversion structure south of the 2nd Street bridge. Based on existing infrastructure within 2nd Street and to avoid traffic closures, a trenchless crossing (microtunneling) of 2nd Street is recommended. The encasement continues westerly and remains north of the Calexico WWTP. Based on existing infrastructure within Animal Shelter Drive and to avoid lengthy construction closures of the road, the encasement would remain north of the road. As the encasement approaches the westerly outfall back into the New River (near the energy dissipater), the alignment would continue within the existing dirt road. As this dirt road narrows near the westerly cliffs, reduced manhole spacing would be required to maintain setbacks from the toe of slope and the New River edge of bank. It is assumed that compacted trench

spoils would be placed as cover for the 72-inch pipe (gravel would not be required for future maintenance access); refer to Figure 2A.

***New River Bypass Encasement Pipe Trench***

Based on parameters identified in the geotechnical investigation prepared for the project (Leighton Consulting 2018), the encasement alignment would require a series of pipe trench construction methodologies. Site conditions would require trench shoring, rock base, geotextile fabric, open trench, and trenchless technology (at the 2nd Street undercrossing). Spoils generated from the encasement trench are estimated at approximately 3 cubic yards per foot. To reduce the cost of exporting trench spoils from the project site, it is assumed that all trench spoils would remain within the project limits; refer to Figure 2A.

The contractor would be responsible for all measures necessary to protect personnel and existing and new structures during construction, including bracing, shoring, etc. The contractor would be responsible for all measures required to dewater all areas to receive foundations to a minimum of 5 feet below all excavation bottoms.

***New River Energy Dissipater***

The proposed 72-inch-diameter bypass encasement pipe would require an energy dissipation device at the downstream end to ensure dry weather conditions do not result in adverse impacts associated with erosion (see Figure 3E, Energy Dissipater). Wet weather flow is less of a concern when considering erosion, as the tailwater condition would likely serve as added protection against erosion. Sediment deposition is also a design consideration to ensure the downstream outlet does not fill in over time. By locating the upstream diversion structure and screen close to the proposed trash screen, minimal solids are anticipated within the pipe flow that might otherwise clog the downstream security cage or screen. Trash bars preventing access into the discharge pipe are proposed.

The preferred location of the energy dissipater is located approximately 400 feet east of the All-American Canal. Energy from encasement flow would be primarily dissipated via a reinforced structural dissipater. Based on the geotechnical recommendations and seismic concerns, additional foundation support is recommended.

***New River Riprap***

In addition to the energy dissipation structure, riprap would be installed immediately downstream of the concrete structure. The inclusion of rip rap in addition to the concrete energy dissipater would decrease the potential for erosion given the anticipated discharge associated with the proposed upstream improvements. Such improvements are not anticipated to adversely affect the 100-year floodplain as currently documented by FEMA; refer also to the Hydraulics Report (Michael Baker International October 2018), available under separate cover.

***New River Pump-Back System***

The Calexico WWTP, located immediately south of the New River, currently releases treated water back into the New River near the location of the plant. The proposed project would reroute the wastewater plant's treated water disposal site to a location immediately downstream of the New River bypass encasement diversion structure to help counter the loss of water to the riparian habitat in the existing river alignment due to the diversion of the river. Treated effluent would be diverted from the existing 18-inch PVC outfall to the new pumping station wet well[1] via a new diversion structure and 24-inch PVC gravity pipeline. The rerouted treatment pipe, known as the New River pump-back system (NRPBS), would be an underground encased pipe that would outfall just south of 2nd Street at the diversion structure. The diversion structure would be a concrete structure cast around the existing 18-inch gravity outfall line to minimize interruptions to the existing WWTP outfall operations. The diversion structure would be located just north of an existing manhole and within the paved WWTP access road. The NRPBS would be

[1] Wet wells are the holding sump for gravity-flow sewer systems. As sewage enters the wet well and the water level rises, pumps are engaged to pump out the sewage to a forced main, or the sewage is lifted to a higher grade to continue the gravity flow to the outlet point (https://vactor.com/Applications/SewerLineCleaning/WetWellLiftStationsCleaning/tabid/118/Default.aspx).

capable of pumping up to 5.0 million gallons per day (mgd) of secondary treated and disinfected wastewater. The NRPBS will convey, on average, approximately 2.25 mgd (3.47 cfs) back to the New River.

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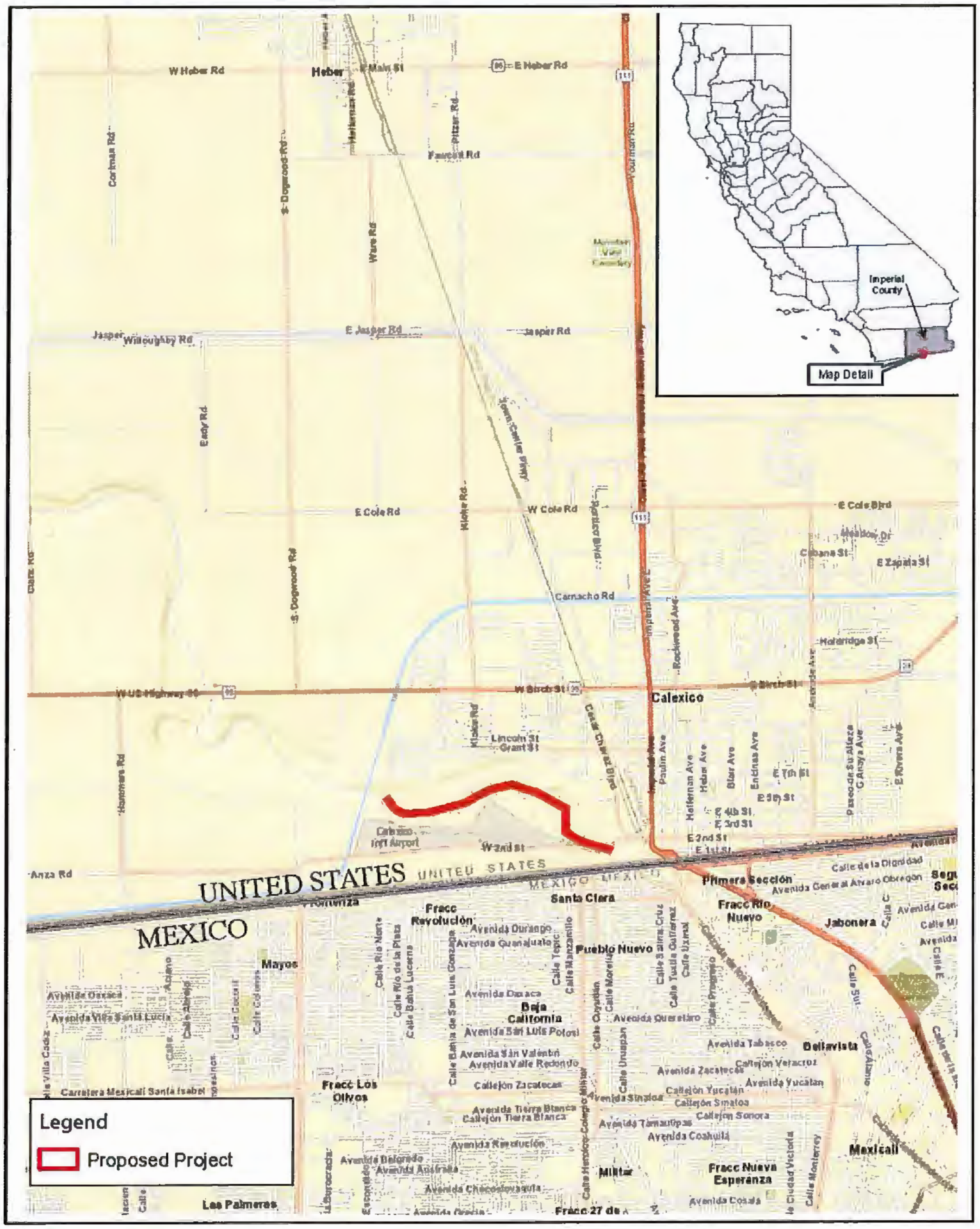
Figure 1 Regional/Local Vicinity Map




Michael Baker INTERNATIONAL

Not to Scale

New River Improvement Project

REGIONAL/LOCAL VICINITY MAP

Figure 1

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Figure 2A Overview – Proposed Improvements

**LEGEND:**

- PROPOSED TRENCH SPOIL LOCATION
- PROPOSED CONSTRUCTION AND STAGING AREA FOR DIVERSION STRUCTURE
- FILL AREA

Michael Baker INTERNATIONAL

Not to Scale

New River Improvement Project

OVERVIEW - PROPOSED IMPROVEMENTS

Figure 2A

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Figure 2B Construction Access and Staging Plan

Michael Baker INTERNATIONAL

Not to Scale

NOTE: AERIAL IMAGE AND TOPOGRAPHIC LINES ARE NOT FROM SAME DATE. AERIAL IMAGE GOOGLE EARTH 2014.

New River Improvement Project

**CONSTRUCTION AND STAGING PLAN**

Figure 2B

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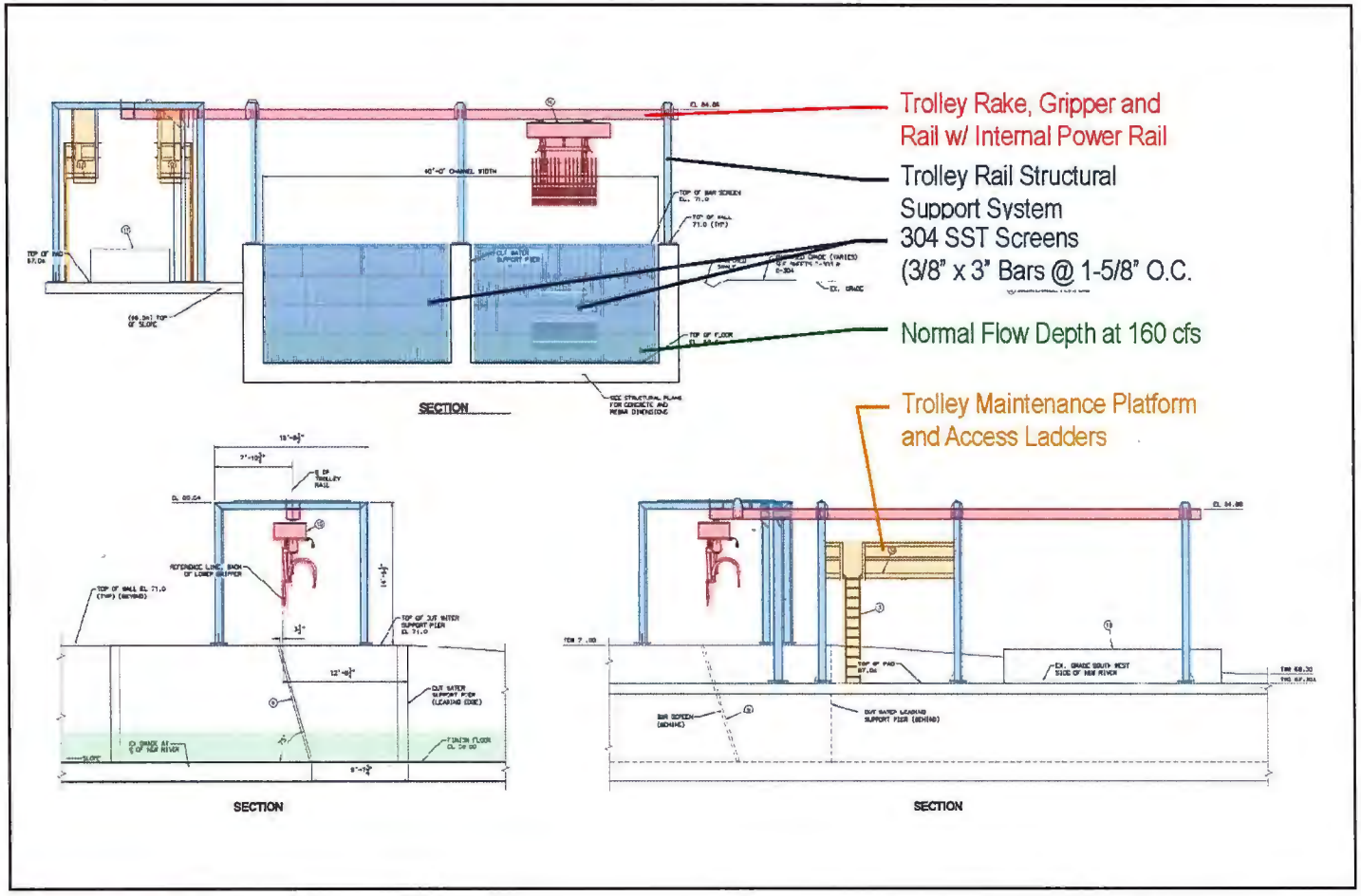


Michael Baker INTERNATIONAL

Source: Michael Baker International, 10/2018
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New River Improvement Project

**TRASH SCREEN/RAKING SYSTEM**

Figure 3A

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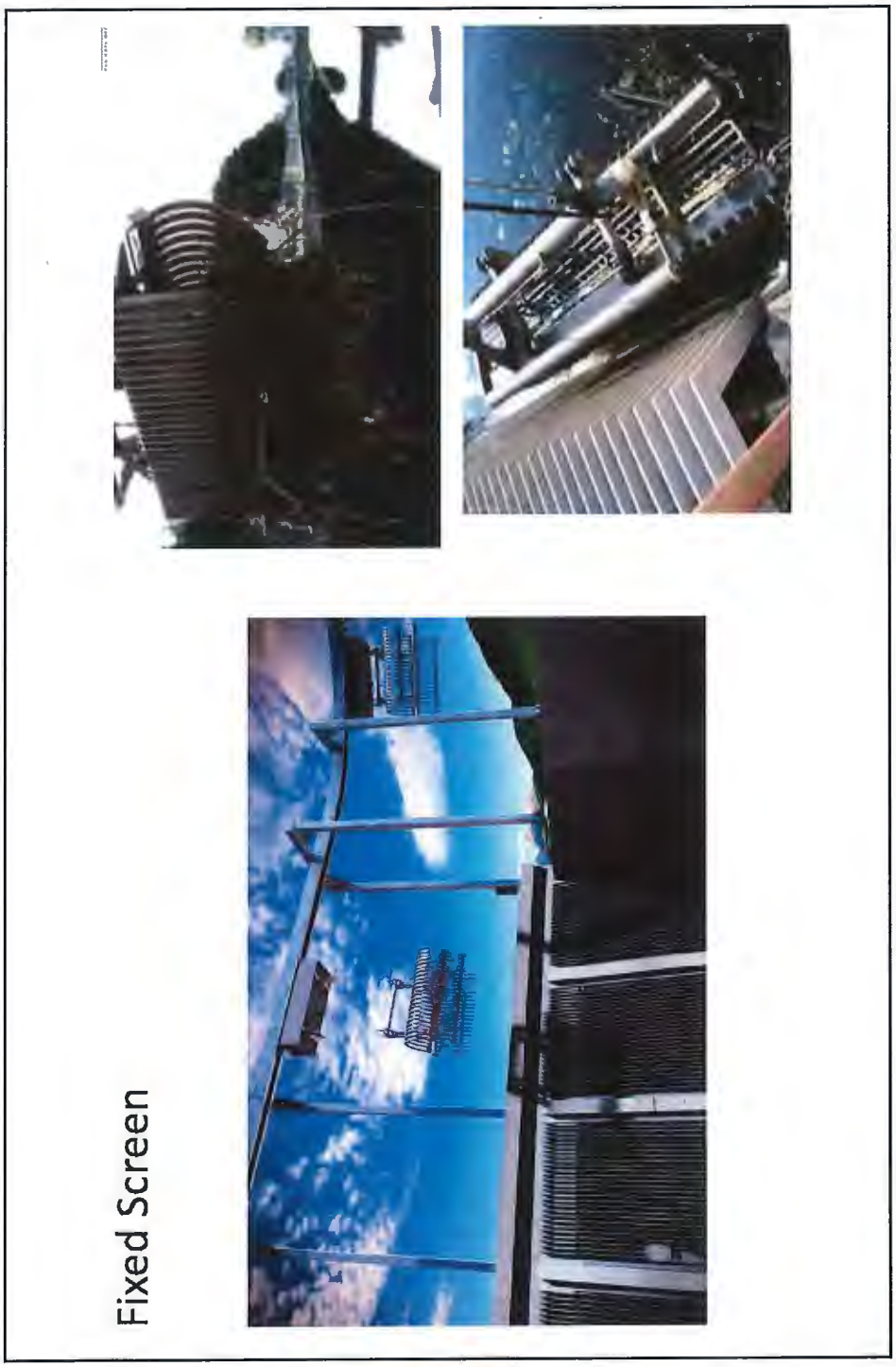
Figure 3B Trash Screen/Raking System




New River Improvement Project

CONCEPTUAL TRASH SCREEN/RAKING SYSTEM

Figure 3B

Michael Baker INTERNATIONAL

Source: Michael Baker International, 10/2013
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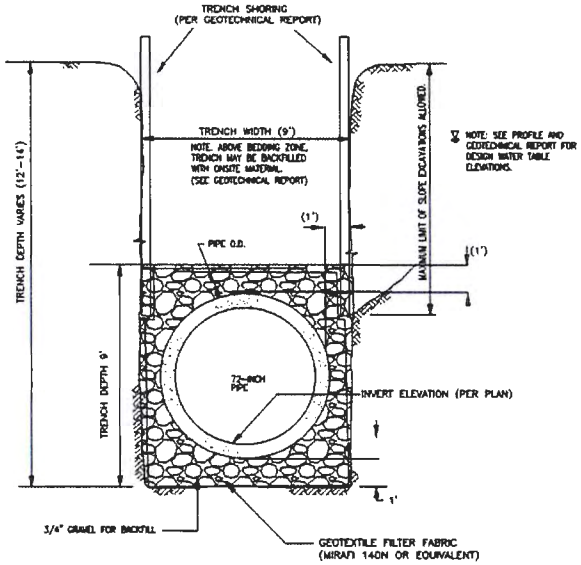


**TRENCH DETAIL**

**N.T.S.**

Bypass Encasement

- 8,100 linear feet
- 72" Fiberglass pipe
- Water tight joints
- Geotextile Fabric
- Cover Varies (2'-18')
- Cut Off Walls

Construction Topics

- Dewatering
- Soil testing – trench spoils

Michael Baker INTERNATIONAL

NOT TO SCALE

Source: Michael Baker International, 10/2016
183 945 15 MND Figures.wsd

New River Improvement Project

**BYPASS ENCASEMENT - OVERVIEW**

Figure 3C

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Figure 3D Pumpback Station

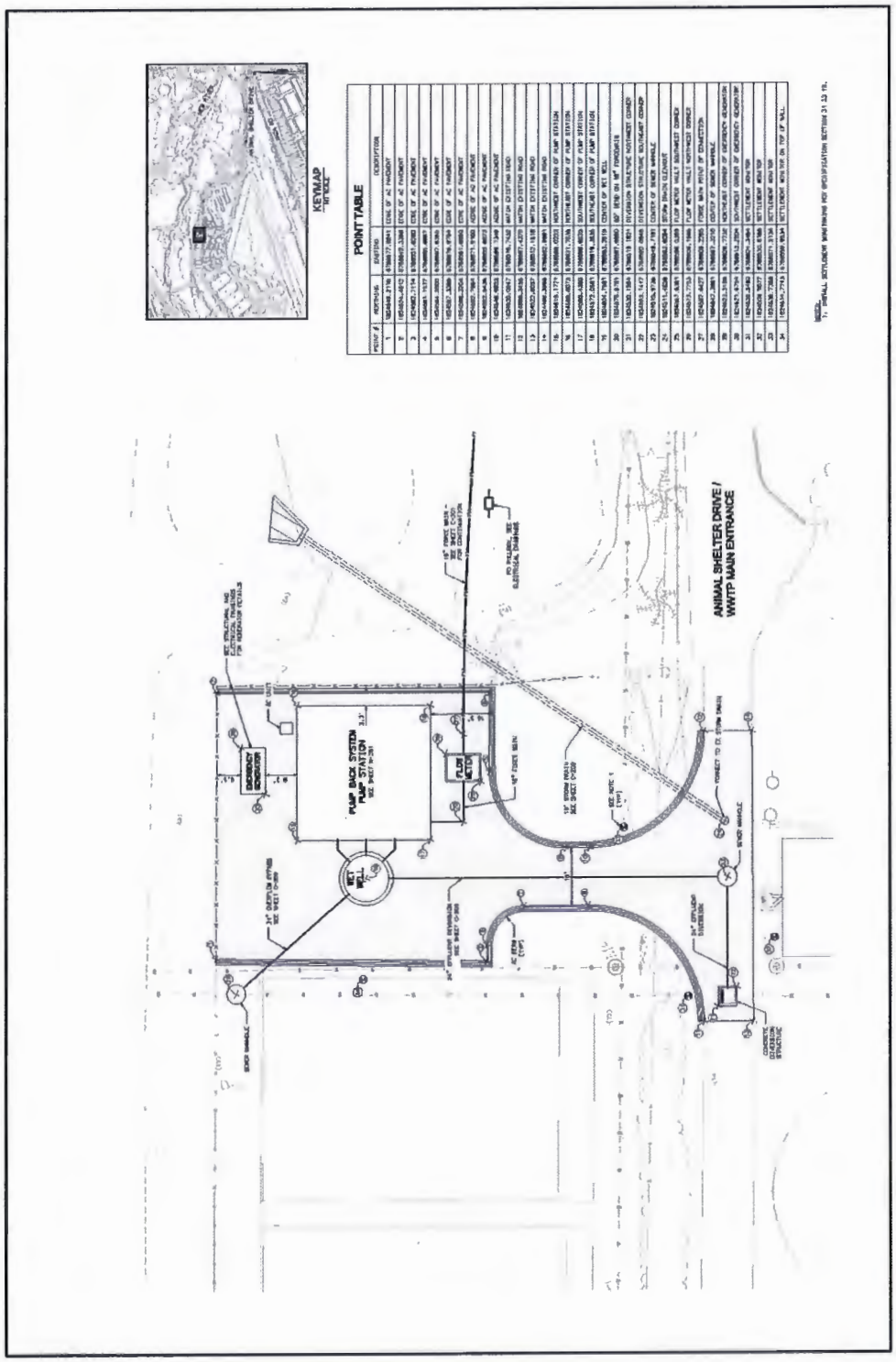

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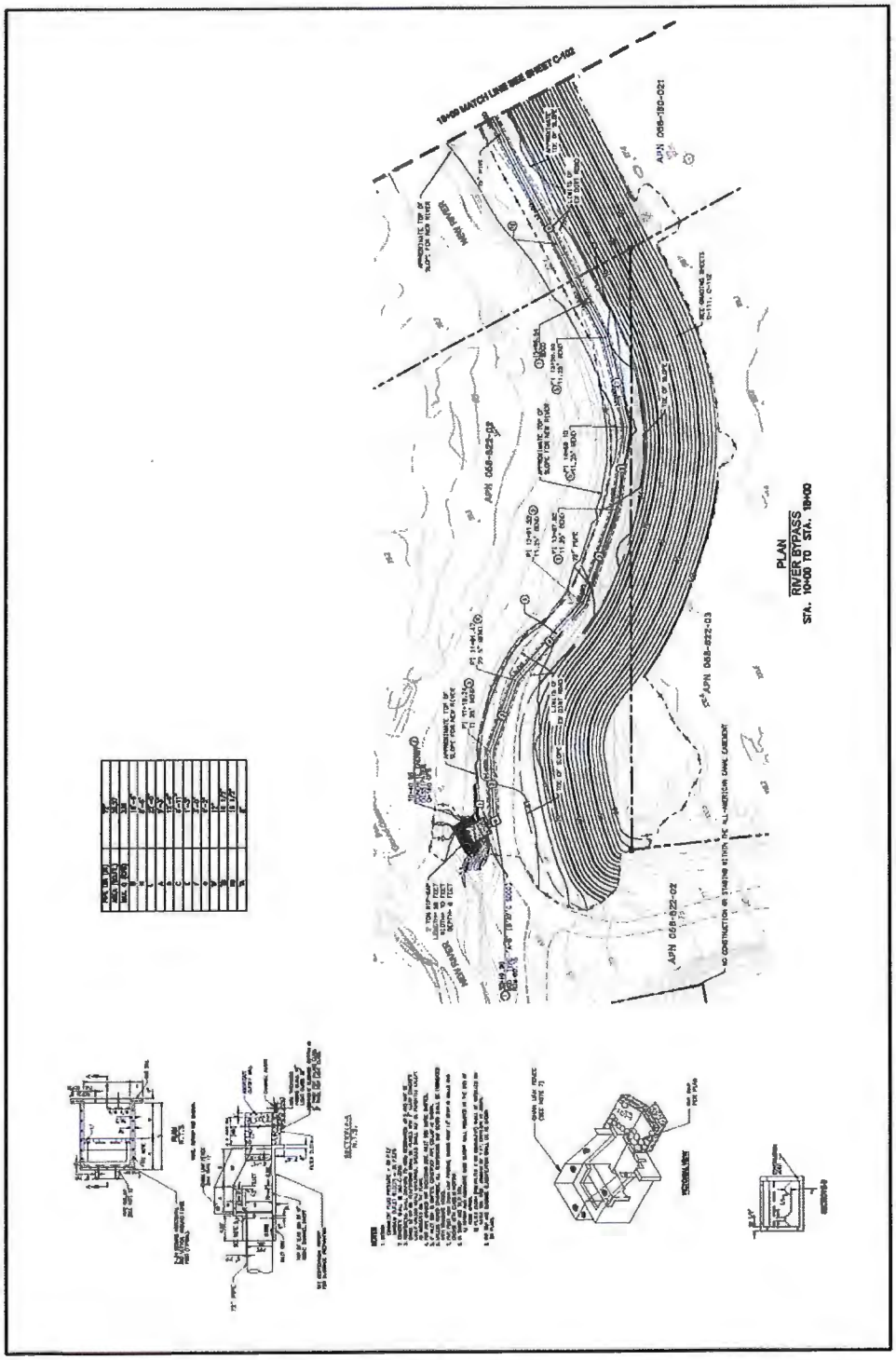
Figure 3E Energy Dissipater




New River Improvement Project
ENERGY DISSIPATER
Figure 3E

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Figure 4A Site Photographs

**Photo 1:** Looking west at the existing trash rack on the New River and a sign reading "WARNING -- CONTAMINATED SOIL AND NEW RIVER WATER -- KEEP OUT" in a developed area at the southeast end of the Project site. Soil stockpiles are visible outside the Project site east boundary.

**Photo 2:** Looking northwest along the New River riparian area with developed bare-ground storage areas to either side. On the right side is a storage area containing piles of soil and broken asphalt, and several large water storage tanks are located on the bluff above.

Michael Baker INTERNATIONAL

Source: Michael Baker International, 2018
163943 IS MND figures.indd

New River Improvement Project

**SITE PHOTOGRAPHS**

Figure 4A

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Figure 4B Site Photographs

**Photo 3:** Looking southwest across a disturbed area toward desert sink scrub habitat. On the bluff in the background is the west end of the airport.

**Photo 4:** Looking northwest at a pipeline that conveys the All-American Canal across the New River riparian area at the west end of the project.

Michael Baker INTERNATIONAL

Source: Michael Baker International, 2016
163943 ISMND Figures.indd

New River Improvement Project

**SITE PHOTOGRAPHS**

Figure 4B

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Figure 4C Site Photographs

**Photo 5:** From atop the bluff at the northwest corner of the Project site looking southeast over the New River riparian area.

**Photo 6:** From atop the bluff at the midpoint of the north Project boundary looking southeast toward the New River riparian area. Visible in the background are storage tanks at the northeast end of the site (left) and the airport hangars and wastewater treatment facility (right).

Michael Baker INTERNATIONAL

Source: Michael Baker International, 2018
185943 IS MND figures.indd

New River Improvement Project

**SITE PHOTOGRAPHS**

Figure 4C

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## EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from a "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 "Potentially Significant Unless Mitigation 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 | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2. ENVIRONMENTAL ANALYSIS

### 2.2.1. AESTHETICS

Would the project:

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

**No Impact.** The project site is in an urbanized setting in Calexico; refer to Figure 2A, Overview – Proposed Improvements. Although lands affected by the proposed project have a General Plan land use designation of Open Space (OS) and are zoned as Open Space (OS), such lands have largely been previously disturbed and/or are developed with existing facilities (e.g., the Calexico Wastewater Treatment Plant). To the north are low-density residential uses; to the east, undeveloped lands; to the south and west, Calexico International Airport; and to the west, industrial uses. The nearest designated state scenic highway is Interstate 8 (I-8), approximately 30 miles to the northwest of the site (Caltrans 2011). No state scenic vistas or scenic highways are in proximity to the project site. Therefore, the proposed improvements would not have a substantial adverse effect on a scenic vista or highway. 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? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** Refer to Response a), above. The project site is not located proximate to a state scenic highway. In addition, the proposed improvements would occur within or directly adjacent to the New River channel. Lands affected by the project are generally previously disturbed and/or developed, with several exceptions where undeveloped lands are present along the project alignment. No scenic resources, mature trees, rock outcroppings, or historic buildings are located on-site. Therefore, the proposed improvements would not damage scenic resources, including, but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway. No impact would occur.

| | | | | | |
|---|---|---|---|---|---|
| c) | Substantially degrade the existing visual character or quality of the site and its surrounding? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Refer to Responses a) and b), above. Potential short-term construction-related aesthetic impacts would primarily result if and when motorists were to view on-site grading activities, construction equipment, and signage/warning markers on area roadways as they drive by active project-related construction activities. Because these short-term visual nuisances would be temporary and would cease upon completion of construction, such potential aesthetic impacts on the existing visual character and quality of the site and its surroundings would be less than significant.

The project site and its surroundings are generally characterized by disturbed and/or developed lands in an urbanized environment that do not offer a visual setting of high scenic value or character. The proposed improvements would largely be undergrounded (bypass encasement structure) and/or would be constructed within existing facilities (Calexico Wastewater Treatment Plant). Therefore, operation of the project would not substantially change the existing visual landscape or substantially degrade the existing visual character of the site.

Additionally, although the project is aimed at designing and completing infrastructure components to address the public health threat that the New River poses to people in the Calexico area, installation of the proposed trash screen would also remove up to an estimated one ton of solid waste from the river per day. Therefore, the project would enhance the existing visual setting and character of the river by removing such waste from potential public view.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The project would therefore not substantially degrade the existing visual character or quality of the site and its surroundings. 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Because the majority of infrastructure improvements would be installed underground or within existing structures, they would not exhibit exterior nighttime lighting. Minimal new lighting would be installed at the trash screen/diversion structure for the purposes of access and maintenance. Additionally, the New River pump-back system would be located within the existing Calexico Wastewater Treatment Plant; no new exterior nighttime lighting is proposed with the system. The project design does not propose the use of any materials that would be highly reflective or have a high potential for adverse glare effects, due to the nature of the improvements.

The project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.2. AGRICULTURE AND FORESTRY 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 nonagricultural use? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The project site is located in an urbanized area of Calexico. The project affects lands that have largely been previously disturbed and/or developed; refer to Figure 2A, Overview – Proposed Improvements. According to available maps published by the California Department of Conservation (DOC 2017a) as part of the Farmland Mapping and Monitoring Program (FMMP), the project site is designated as Other Land, which is land not included in any other mapping category. Common examples include low-density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres (DOC 2017a). As there is no FMMP-designated farmland on-site, the project would not convert any such lands to nonagricultural use. No impact would occur.

| | | | | | |
|---|---|---|---|---|---|
| b) | Conflict with existing zoning for agricultural use or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. See Response a), above. The Land Use Element of the City of Calexico's (2007) General Plan Update designates lands affected by the proposed project as OS (Open Space); the site is zoned OS (Open Space). The project site is not intended for agricultural use. The site is not subject to a Williamson Act contract, and no agricultural uses are present on or adjacent to the subject site. The project would not create a conflict with existing agricultural zoning for agricultural use or a Williamson Act contract. No impact would occur.

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

**No Impact**. There are no lands zoned for forest or timber production within the Calexico city limits or on the project site. Therefore, no impact would occur.

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

**No Impact**. There are no designated forestlands on or adjacent to project site. Therefore, the project would not convert any such lands to non-forest use. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forestland to non-forest use? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** As stated above, the project site is not located in an agricultural use area and does not support any designated farmland. Thus, implementation of the project would not result in changes in the environment that would result in the conversion of farmland to nonagricultural use. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management 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? | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant Impact with Mitigation Incorporated**. The air quality in Imperial County is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The ICAPCD is the local air quality agency and has shared responsibility with the California Air Resources Board (CARB) for ensuring that state and federal ambient air quality standards are achieved and maintained in the county. ICAPCD responsibilities include monitoring ambient air quality, planning activities such as modeling and maintenance of the emissions inventory, and preparing clean air plans.

Clean air plans, known as State Implementation Plans (SIP), must be prepared for areas designated as nonattainment areas to demonstrate how the area will come into attainment of the exceeded ambient air quality standard. Air basins with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants. Imperial County is classified a nonattainment area for particulate matter equal to or less than 10 microns in aerodynamic diameter ($PM_{10}$) and ozone ($O_3$) under both state and federal air quality standards (the pollutants described as reactive organic gases [ROG] and oxides of nitrogen [$NO_x$] are ozone precursors).

The region's SIP includes the ICAPCD air quality plans: Final 2009 8-Hour Ozone Modified Air Quality Management Plan, Final 2009 Reasonably Available Control Technology State Implementation Plan, and Final $PM_{10}$ 2009 State Implementation Plan. Generally, project compliance with all the ICAPCD rules and regulations results in conformance with the ICAPCD air quality plans.

Furthermore, the county is classified a nonattainment area for particulate matter equal to or less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$) under federal standards. Imperial County is an unclassified or attainment area for all other criteria air pollutants, including sulfur oxide, carbon monoxide, and lead. Unclassified areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment but are generally presumed to comply with the ambient air quality standard.

ICAPCD Rule 925 establishes the conformity criteria and procedures necessary to ensure conformance with the SIP. Projects are considered less than significant when the totals of direct and indirect emissions are below specified emissions levels (40 CFR Section 51.853[b][1]).

As discussed below, the project's emissions would be below the ICAPCD's threshold of significance after incorporation of mitigation measure AQ-1. The proposed project would also conform to the Calexico General Plan; no changes to the existing land use designation (OS – Open Space) that applies to lands affected by the project are required or proposed.

Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures

**AQ-1** The project shall adopt best available control measures (BACT) to minimize emissions from surface disturbing activities to comply with ICAPCD Regulation VIII (Fugitive Dust Rules). These measures include the following:

- All disturbed areas, including bulk material storage which is not being actively utilized, shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by using water, chemical stabilizers, dust suppressants, tarps, or other suitable material such as vegetative ground cover.

- All on-site and off-site unpaved roads shall be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- All unpaved traffic areas of 1 acre or more with 75 or more average vehicle trips per day shall be effectively stabilized and visible emissions shall be limited to no greater than 20 percent opacity for dust emissions by paving, chemical stabilizers, dust suppressants, and/or watering.
- The transport of bulk materials shall be completely covered unless 6 inches of freeboard space from the top of the container is maintained with no spillage and loss of bulk material. In addition, the cargo compartment of all haul trucks shall be cleaned and/or washed at the delivery site after removal of bulk material.
- All track-out or carry-out shall be cleaned at the end of each workday or immediately when mud or dirt extends a cumulative distance of 50 linear feet or more onto a paved road within an urban area.
- Bulk material handling or transfer shall be stabilized prior to handling or at points of transfer with application of sufficient water, chemical stabilizers, or by sheltering or enclosing the operation and transfer line.
- The construction of any new unpaved road shall be prohibited within any area with a population of 500 or more unless the road meets the definition of a temporary unpaved road. Any temporary unpaved road shall be effectively stabilized, and visible emissions shall be limited to no greater than 20 percent opacity for dust emission by paving, chemical stabilizers, dust suppressants, and/or watering.

*Timing/Implementation:* *During project construction activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

| | | | | |
|---|---|---|---|---|
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant Impact with Mitigation Incorporated**. The project site is located in Calexico within Imperial County. State and federal air quality standards are often exceeded in many parts of the county. The project's potential short-term construction-period and long-term operational-period air quality impacts are discussed below.

Construction Emissions

Construction activities would involve demolition, earthwork, grading, paving, and construction of a pump station. Construction of the proposed project is anticipated to take approximately one year to complete. The predominant construction activity would be earthwork, which would be balanced on-site (no import/export of soils).

Table 2.2.3-1, Construction Air Emissions, depicts the construction emissions associated with the project. Emitted pollutants would include ROG, carbon monoxide (CO), $NO_X$, $PM_{10}$, and $PM_{2.5}$. The largest amount of ROG, CO, and $NO_X$ emissions would occur during the earthwork phase. $PM_{10}$ and $PM_{2.5}$ emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. The majority of $PM_{10}$ and $PM_{2.5}$ emissions would be generated by fugitive dust from earthwork activities. Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site.

**TABLE 2.2.3-1**
**CONSTRUCTION AIR EMISSIONS**

| Construction Emissions Source | Pollutant (pounds per day)[1] | | | | | |
|---|---|---|---|---|---|---|
| | ROG | $NO_X$ | CO | $SO_2$ | $PM_{10}$ | $PM_{2.5}$ |
| **2020** | | | | | | |
| Unmitigated Emissions | 8.89 | 89.63 | 67.71 | 0.13 | 424.03 | 50.90 |
| Mitigated Emissions[2] | 8.89 | 89.63 | 67.71 | 0.13 | 141.17 | 19.52 |
| *ICAPCD Thresholds* | 75 | 100 | 550 | — | 150 | — |
| *Is Threshold Exceeded?* | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

ROG = reactive organic gases; $NO_X$ = nitrogen oxides; CO = carbon monoxide; $SO_2$ = sulfur dioxide; $PM_{10}$ = particulate matter up to 10 microns; $PM_{2.5}$ = particulate matter up to 2.5 microns

Notes:
1. Emissions were calculated using the California Emissions Estimator Model version 2016.3.2 (CalEEMod), as recommended by the ICAPCD.
2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the ICAPCD.

Source: Refer to Appendix B, Air Quality/Greenhouse Gas Technical Data, for detailed model input/output data.

As depicted in Table 2.2.3-1, construction-related emissions would not exceed the established ICAPCD thresholds for criteria pollutants with the incorporation of mitigation measure AQ-1. In addition, the proposed project would develop and implement a dust control plan consistent with the ICAPCD Rule 801 requirements for construction activities. The purpose of this rule is to reduce the amount of $PM_{10}$ entrained in the ambient air as a result of emissions generated from construction and other earthmoving activities by requiring actions to prevent, reduce, or mitigate $PM_{10}$ emissions.

During construction activities, the project would also be required to comply with ICAPCD Fugitive Dust Rules. The proposed project would be required to comply with mitigation measure AQ-1, which requires compliance with ICAPCD standard regulations, resulting in a less than significant impact with mitigation incorporated.

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 the California Air Resources Board 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 were 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 (2000) 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 in the project area. Thus, no impact would occur.

Long-Term (Operational) Emissions

The project involves a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international

boundary with Mexico. Operational air emissions would consist of mobile source emissions generated from project-related traffic and stationary source emissions generated indirectly from natural gas and electricity consumption. The project's pump-back system would consume approximately 458,000 kilowatt-hours per year of electricity. Project operation has the potential to create air quality impacts, primarily from energy consumption from water pumping and mobile emissions from periodic maintenance and deliveries. Additionally, as shown in Table 2.2.3-2, Long-Term Operational Air Emissions, the operational emissions would be below the ICAPCD thresholds. Thus, impacts would be less than significant in this regard.

**TABLE 2.2.3-2**
**LONG-TERM OPERATIONAL AIR EMISSIONS**

| Emissions Source | Pollutant (pounds per day)[1] | | | | | |
|---|---|---|---|---|---|---|
| | ROG | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
| **Project Emissions** | | | | | | |
| Energy Emissions[2] | 0.01 | 0.34 | 0.25 | 0.15 | 0.11 | 0.08 |
| Mobile Emissions | 0.06 | 0.47 | 0.62 | 0.00 | 38.27 | 3.82 |
| ***Total Emissions[2]*** | **0.07** | **0.81** | **0.87** | **0.15** | **38.38** | **3.90** |
| *ICAPCD Threshold* | *137* | *137* | *550* | *550* | *150* | *550* |
| ***Is Threshold Exceeded?*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

Notes:
1. Emissions were calculated using CalEEMod, version 2016.3.2.
2. Energy emissions are from the energy usage attributed to the pump-back station.
3. The numbers may be slightly off due to rounding.

Source: Refer to Appendix B, Air Quality/Greenhouse Gas Technical Data, for detailed model input/output data.

Mitigation Measures: Refer to mitigation measure AQ-1.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ☐ ☒ ☐ ☐

**Less Than Significant Impact with Mitigation Incorporated**. Refer to Responses a) and b), above.

Mitigation Measures: Refer to mitigation measure AQ-1.

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

**Less Than Significant Impact with Mitigation Incorporated**. In April 2005, CARB released the *Air Quality and Land Use Handbook: A Community Health Perspective*, which offers guidance on developing sensitive land uses in proximity to sources of air toxics. Sensitive land uses are generally defined as locations where people reside or where the presence of air emissions could adversely affect the use of the land. Sensitive land uses identified in the handbook include residential communities, schools and schoolyards, day-care centers, parks and playgrounds, and hospitals and medical facilities. Typical sensitive receptors include residents, schoolchildren, hospital patients, and the elderly.

The nearest sensitive receptors are residential uses approximately 700 feet north of the project site along Wozencraft Street and Calexico Street. Project construction and operational emissions would be below the threshold from ICAPCD; refer to Responses b) and c), above. Therefore, project construction and/or operations

are not anticipated to expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant with mitigation incorporated.

Mitigation Measures: Refer to mitigation measure AQ-1.

| | | | | |
|---|---|---|---|---|
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. Diesel fuel exhaust from heavy equipment would be a potential odor source during project construction. Operation of diesel-powered equipment would be of short duration and intermittent, although occasional odors from diesel equipment exhaust may be experienced by workers near the project site or by people at adjacent uses (e.g., to the southeast and/or northwest of the project site). However, this effect would be intermittent, contingent on prevailing wind conditions, and limited to project construction activities. Accordingly, odors would not affect a substantial number of people. Furthermore, as stated in Response d), the nearest sensitive receptors are residential uses approximately 700 feet north of the project site along Wozencraft Street and Calexico Street. Construction odors would not be noticeable at this distance.

Operationally, the proposed trash screen would be located directly upstream from the New River bypass encasement diversion structure and would be capable of removing one ton of trash per day. The collection and removal of such waste may have the potential to temporarily generate odors. However, the project itself would not generate such odors and would only serve to collect existing solid waste for purposes of removal (i.e., no substantial increase in solid waste generation would directly occur with project operations). All solid waste removed with the trash screen would be collected and hauled to an approved off-site location for disposal, in accordance with applicable local, state, and federal regulations. Operation of the other proposed components of the project (bypass encasement structure for capturing river flows; pump-back system [enclosed within the existing Calexico Wastewater Treatment Plant]) would not generate odors that would affect the surrounding population.

One of the key objectives of the proposed project is to eliminate the offensive odors being emitted from the polluted New River which has impacted the residents of Calexico. The odor represents a significant threat to public health in the area because the odor is the byproduct of pollution in the river from hazardous substances such as industrial waste and raw sewage Residents most likely to be affected are those approximately 700 feet to the north of the proposed project site. However, additional residents may also be exposed to offensive odors when winds carry the odor greater distances or when residents attempt to visit the river and surrounding environment. The proposed project would intercept flows of the New River just north of the international boundary via an underground pipe that would bypass the populated area of southern Calexico and discharge the water to the east of the All-American Canal; refer to Figure 2A, Overview – Proposed Improvements. Diverting the New River and undergrounding flows through the city as proposed would reduce potential long-term effects of objectionable odors on the residents of Calexico.

Therefore, the project would not create objectionable odors affecting a substantial number of people and in fact, it would be beneficial in improving existing conditions by reducing potentially offensive odors currently generated by the New River. Impacts would be less than significant.

## 2.2.4. BIOLOGICAL RESOURCES

This section summarizes the results of the general biological surveys, habitat assessments, and jurisdictional field delineations detailed in the Biological Technical Letter Report (Appendix C-1) and the Jurisdictional Delineation Report (Appendix C-2) prepared for the project by Blackhawk Environmental (October 12, 2018).

The Biological Survey Area (BSA) for the project is shown in Figure 2 (Overview Map) of Appendix C-1 (please refer to the red polygon). Please note that although these reports address two alternative alignments for the proposed bypass encasement pipeline, since the time of the writing of those documents, the preferred alignment (referred to as "Alternative 1" in the technical reports referenced above) has been selected as the proposed alignment and is addressed as such in this and all other sections throughout this Initial Study. The vegetation communities and/or land cover types within the BSA are shown in Maps 1-11 of Figure 2 in Appendix C-1; and are listed in Table 2.2.4-1 below.

**TABLE 2.2.4-1**
**VEGETATION COMMUNITIES AND LAND COVER TYPES IN THE BSA (EXISTING ACREAGES)**

| Vegetation Community/Land Cover Type | Acres | Vegetation Community/Land Cover Type | Acres |
|---|---|---|---|
| Disturbed Riparian Scrub* | 20.58 | Non-native Grassland | 0.86 |
| Arrow Weed Scrub** | 3.44 | Salt Pan | 6.95 |
| Mesquite Bosque** | 0.75 | Unvegetated Channel | 0.16 |
| Bush Seepweed Scrub* | 0.32 | Open Water | 6.30 |
| Desert Sink Scrub* | 55.42 | Disturbed areas | 70.72 |
| Disturbed Desert Sink Scrub* | 6.59 | Developed areas | 185.07 |
| Disturbed Big Saltbush Scrub | 9.06 | | |

* Special-status vegetation communities due to their association with the jurisdictional features of the New River and its tributary drainage, and the flood terraces above the river channel.
**These vegetation communities are not classified as wetlands (i.e., hydrophytic vegetation and/or riparian vegetation) in Appendix C-2; but nevertheless, are considered special-status habitats due to their close association with the onsite wetlands (disturbed riparian scrub, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub).

The BSA is characterized by a wide ravine with a reach of the permanently-flowing New River coursing along the ravine bottom amongst a series of flood terraces elevated above the river channel, framed by upper mesas abutting the north and south edges of the ravine. There are three tributary drainage features south of the river (that flow northwesterly into it); and a series of deep erosional gullies in the west portion of the BSA.

The south-to-north trending New River flows year-round from near Cerro Prieto, Baja California, Mexico; through the City of Mexicali, Baja California, Mexico; across the U.S.-Mexico International Boundary and through the City of Calexico; eventually terminating into the Salton Sea. Water flowing in the New River is not natural, consisting primarily of municipal discharge, industrial dumping, and agricultural runoff derived from Mexicali and from water treatment outfall, storm drains, ditches, culverts, and dry tributaries in and around Calexico. The BSA also contains three unnamed intermittent drainage features on the south side of the river; described as Drainage Features A, B, and C in Appendix C-2. The largest of these is Drainage Feature C which extends from the airport grounds into the river.

The New River drainage is vegetated with disturbed riparian scrub and bush seepweed scrub, which includes a 15-to-33-foot wide continuous strip of riparian vegetation for about 75 percent of the length of affected reach that will be dewatered by the project. The tributary drainage feature is primarily vegetated with bush seepweed scrub. Outside the edges of these habitats, the adjacent flood terraces are covered by a patchwork of desert sink scrub, disturbed desert sink scrub, salt pan, and disturbed bare-ground areas. The north mesa is primarily composed of a flat strip of disturbed bare ground with occasional patches of arrow weed scrub, mesquite bosque, and disturbed big saltbush scrub. Finally, in the south mesa occasional patches of non-native grasses occur within the airport grounds, and an area of disturbed big saltbush scrub occurs at its west end.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

The specific plant and wildlife species observed using these habitats during the general biological surveys, habitat assessments, and jurisdictional field delineations are detailed in Appendices C-1 and C-2, and some of these are discussed in the sections below. No potential vernal pools, seasonal depressions, or fairy shrimp habitat were observed during the habitat assessment. Two non-native fish species were observed in the river: carp and mosquitofish. Additional non-native freshwater fish may use the river as well; however, native fish species are not present and would not expected to be present due to highly degraded water quality conditions.

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 (CDFW) or US Fish and Wildlife Service (USFWS)? | ☐ | ☒ | ☐ | ☐ |
| 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 CDFW or USFWS? | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant with Mitigation Incorporated.** Refer to Appendix C-1 for the regulatory definitions of special-status species and vegetation communities, as listed by federal and state agencies, local jurisdictional agencies (County and cities), and environmental organizations such as the California Native Plant Society (CNPS).

Special-Status Species

Based on suitable habitat conditions and the results of a records search of the California Natural Diversity Database (CNDDB), there is a low potential for one special-status plant species to occur within the BSA: California satintail, which is listed by CNPS as California Rare Plant Rank 2B.1. This species is not listed as federally/state endangered, threatened, or rare. Because the habitat assessment survey was conducted during the typical blooming period for this species when it could be detected if present, and because it was not observed, this analysis assumes that no impacts are anticipated occur to this or any of the other special-status plant species discussed in Appendix C-1.

With respect to special-status wildlife, suitable nesting and foraging habitats for protected avian species are present throughout and adjacent to the BSA. During the biological resources survey, a killdeer adult and fledgling were observed foraging together on the riverbank, and the following birds were observed in the adjoining disturbed riparian scrub habitat: red-winged blackbird, semi-palmated plover, black-necked stilt, and killdeer. Some of these species likely use this habitat for nesting. In the southern flood terrace above the river channel, an active black-necked stilt nest with four eggs was found on a mudflat adjacent to riparian scrub. In the south mesa, several active black-necked stilt nests were observed on the bare-ground walkways between the wastewater treatment basins. Therefore, any construction activities during the avian breeding season (generally between January 1 and August 31, including raptors) could result in indirect noise impacts on breeding activities. This is considered a potentially significant impact. Implementation of mitigation measure BIO-1 would reduce this impact to less than significant.

In addition, there is a potential for the following special-status wildlife species to occur within the BSA based on direct observations, suitable habitat conditions, and the results of a CNDDB records search: burrowing owl, American badger, pocketed free-tailed bat (foraging only), western mastiff bat (foraging only), and western yellow bat (foraging and roosting). None of these species is listed as federally/state endangered or threatened, although the burrowing owl is designated by USFWS in their listing of Birds of Conservation Concern; and all are listed as Species of Special Concern by CDFW. The potential for the project to impact these potentially-occurring species is addressed below.

**Burrowing Owl.** During the biological resources survey, a burrowing owl pair was observed within the APE utilizing a void beneath some broken concrete as a burrow, and a second pair was seen using the open end of a drain pipe. Numerous suitable burrowing owl burrows were found throughout the site, including many piles of broken concrete and debris, and in drain pipes and rodent burrows in the earthen berms and ravine slopes. Burrowing owl(s) may establish active nesting burrows anywhere throughout the site. Therefore, project excavation activities could directly impact a previously established active nesting burrow, resulting in a potentially significant impact. Implementation of mitigation measures BIO-2 and BIO-3 would reduce this impact to less than significant.

**American Badger.** The disturbed riparian scrub habitat associated with the New River extends off-site to the west, unimpeded, as it passes under an elevated pipeline which conveys the waters of the All-American Canal as it crosses over the river. This habitat connection provides an avenue for wildlife movements between the BSA and the off-site agricultural fields to the west, and therefore creates a low potential for occurrence for the American badger which could possibly use this potential wildlife linkage to access the on-site habitats. As with the burrowing owl, badgers may establish dens anywhere throughout the site, and project excavation activities could directly impact a previously established active den, resulting in a potentially significant impact. Implementation of mitigation measure BIO-4 would reduce this impact to less than significant.

**Special-Status Bats.** All three bat species listed above have a high potential to forage in and around the disturbed riparian scrub habitat within the BSA, and western yellow bats have a moderate potential to roost in the onsite Mexican fan palms. Implementation of mitigation measure BIO-1 would reduce these potential impacts to less than significant.

Special-Status Vegetation Communities

Special-status vegetation communities/habitats are typically defined as areas: (a) of special concern to resource agencies; (b) protected under CEQA; (c) designated as sensitive natural communities by CDFW in FGC Section 1600; (d) regulated under Section 404 of the Clean Water Act (CWA); and (e) protected under local regulations and policies. As noted in Table 1, the following on-site habitats are considered special-status due to their association with the jurisdictional features of the New River and its tributary drainage, and the flood terraces above the river channel: disturbed riparian scrub, arrow-weed scrub, mesquite bosque, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub.

**Direct, Temporary and Permanent Impacts.** Vegetation clearance and pipeline excavation, trenching, and construction activities for the proposed project would result in temporary direct impacts to 1.80 acres, combined, of the following habitats: disturbed riparian scrub, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub. Potential temporary impacts to these habitats could also occur in the event of accidental or unforeseen encroachment by construction workers and/or equipment.

With respect to permanent loss of special-status habitats associated with installation of the trash screen, bypass encasement infrastructure and pump back system, implementation of the proposed project would result in the following direct impacts: disturbed riparian scrub (0.13 acre), desert sink scrub (1.41 acres), and disturbed desert sink scrub (0.25 acre).

All of these direct impacts to special-status habitats are considered significant. Implementation of mitigation measure BIO-5 would reduce these impacts to less than significant.

**Indirect, Temporary Impacts.** Grading and construction activities could result in potential exacerbation of existing water quality degradation in the river during rain events related to: (1) increased turbidity and total dissolved solids [TDS] levels from silt/sediment-laden runoff from unprotected graded areas and soil stockpiles; and (2) increased levels of hydrocarbons and heavy metals from polluted runoff from active construction areas in which accidental leaks or spills may have occurred involving oil/petroleum products, solvents, or other hazardous materials. These potential indirect impacts are considered significant. Implementation of mitigation measures BIO-6 and BIO-7 would reduce these impacts to less than significant.

**Indirect, Permanent Impacts.** The total amount of new impervious surfaces resulting from the proposed above-ground facilities (i.e., bypass encasement infrastructure and pump back system) combined would be minimal and would not result in substantial runoff volumes and velocities that could otherwise cause potential channel disturbances along the New River from erosive runoff velocities from rain events.

Potential long-term indirect impacts to disturbed riparian scrub, arrow-weed scrub, mesquite bosque, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub habitats along the New River and its associated floodplain areas are correlated with the altered hydrological regime from project operations. Specifically, the project would result in a substantial reduction of flows into this reach of the river [i.e., existing 160 cfs to a proposed 5.0 mgd (7.74 cfs) peak/design flow and 2.25 mgd (3.47 cfs) average flow] and lower the water table to a level that could adversely affect the current wetland functions of these riverine habitats, or to a level that may no longer sustain these habitats, possibly transforming them to a greater degree of upland vegetation. Periodic exceptions to these conditions may occur during heavy rain events in which storm flows in the river could overtop the weir structure at the proposed diversion structure/bypass/trash screen resulting in temporal flows along this reach. As there is a reasonable probability the project could cause and/or exacerbate long-term loss of existing riverine habitats within this reach of the river and its associated floodplain areas, a significant impact would result. Under the worst-case scenario, implementation of the proposed project would indirectly impact a total of 79.24 acres, combined, of the following habitats: disturbed riparian scrub, arrow-weed scrub, mesquite bosque, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub. Implementation of mitigation measure BIO-5 would reduce these impacts to less than significant.

Mitigation Measures

**BIO-1** Vegetation removal and ground-disturbing activities should avoid the nesting bird season (generally between January 1 and August 31) to the extent practical to limit the potential need for avoidance measures. A preconstruction avoidance survey shall be conducted for MBTA- and CDFW-protected nesting birds within 500 feet of areas proposed for vegetation removal and/or initial grading activities regardless of time of year to ensure compliance with all applicable laws pertaining to nesting birds and birds of prey. The survey shall be conducted by a qualified biologist within three days prior to vegetation removal and/or initial grading activities. If active nests are observed, the biologist shall implement non-disturbance buffers (minimum 300 feet for passerines and 500 feet for raptors) and shall monitor active nest(s) weekly during construction activities to ensure nesting behavior is not being indirectly affected by construction-related noise levels. If the biologist determines that nesting behavior is being adversely affected, a noise mitigation program (e.g., staggered work schedules, altered work locations, noise abatement barriers) shall be implemented, in consultation with the CDFW, to allow such activities to proceed. Once the biologist has determined the young have fledged and have not returned to the nest(s), construction activities may proceed.

In addition, raptor nests are protected under FGC Section 3503.5, which makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes, or to take, possess, or destroy the nests or eggs of any such birds. Consultation with CDFW shall be required prior to removal of any raptor nest(s) observed during the preconstruction clearance survey.

*Timing/Implementation:* *Prior to/during any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-2** Focused burrowing owl surveys shall be conducted within the APE and surrounding 150-meter survey area in accordance with the survey protocol in the CDFW 2012 *Staff Report on Burrowing Owl Mitigation*. Specifically, a total of four surveys shall occur as follows: (1) at least one between February 15 and April 15; and (2) a minimum of three at least three weeks apart between April 15 and July 15, with at least one of these surveys after June 15. Surveys shall occur during favorable weather conditions and either during early morning hours (one hour before sunrise until two hours after sunrise) or during late afternoon hours (two hours before sunset until one hour after sunset). Special attention shall be given to the potential occupancy and avoidance (regardless of occupancy) of the ten (10) artificial burrowing owl burrows installed in September

2012 as mitigation to passively relocate individuals of burrowing owl affected by the Calexico Gran Plaza Project (see Figure 5, Artificial Burrow Locations). A final report shall be submitted for CDFW review addressing survey methods, transect widths, duration, conditions, results, and any additional required mitigation for CEQA adequacy.

*Timing/Implementation:* *Prior to any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-3** Two preconstruction burrowing owl surveys (14 days and 24 hours prior to vegetation removal and/or initial grading activities) shall be conducted within the APE and surrounding 150-meter survey area, if neither would coincide with the surveys in mitigation measure BIO-2. These surveys shall occur during favorable weather conditions and either during early morning hours (one hour before sunrise until two hours after sunrise) or during late afternoon hours (two hours before sunset until one hour after sunset). After the first preconstruction survey, a report shall be submitted for CDFW review addressing survey methods, transect widths, duration, conditions, results, and any mitigation recommendations. Following the 24-hour preconstruction survey, a memo report shall be sufficient for CDFW review addressing any additional required mitigation per CEQA standards such as implementation of a Burrowing Owl Mitigation Plan, including but not limited to passive relocation procedures, "shelter in place" procedures, noise attenuation barriers, visual barriers, biological monitoring during construction, or other methods to avoid and minimize indirect and direct impacts to burrowing owls. Setbacks, as recommended by CDFW (2012), shall be implemented as follows (note: all installed artificial burrows are to be categorized as nesting sites):

| Location | Time of Year | Level of Disturbance | | |
|---|---|---|---|---|
| | | Low | Med | High |
| Nesting sites | April 1-Aug 15 | 200 m* | 500 m | 500 m |
| Nesting sites | Aug 16-Oct 15 | 200 m | 200 m | 500 m |
| Nesting sites | Oct 16-Mar 31 | 50 m | 100 m | 500 m |

*Timing/Implementation:* *Prior to any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-4** Within 5 days prior to project disturbance activities, a qualified biologist shall conduct a preconstruction survey for potential American badger dens within the proposed on-site disturbance footprints and surrounding 100-foot survey buffers. If dens are detected, each shall be classified as either inactive, potentially active, or definitely active; and the following actions taken:

- Inactive dens that would be directly impacted shall be excavated by hand and backfilled to prevent reuse by badgers.
- Potentially and definitely active dens that would be directly impacted shall be monitored by a biologist for three consecutive nights using a tracking medium (e.g., diatomaceous earth, fire clay) and/or infrared camera stations at the den entrance.
    - If no tracks are observed or no photos of the species are captured after three nights, the den shall be excavated and backfilled by hand.
    - If tracks are observed, the den entrance shall be progressively blocked with natural materials (e.g., rocks, dirt, sticks, vegetation) for the next three to five nights to discourage badgers from

continued use of the den. After verification that the den is unoccupied, it shall then be excavated and backfilled by hand to ensure no badgers are trapped in the den.

- If an active natal den (i.e., with pups) is detected on-site, per the procedures above, the CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action shall depend on the age of the pups, on-site location of the den (e.g., central area, perimeter), status of the perimeter fence (completed or not), and pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around all active natal dens.

*Timing/Implementation:* *Prior to any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-5** U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdictional features are regulated by the federal and state governments. Unavoidable impacts to USACE jurisdictional non-wetland WoUS and wetlands must be authorized by USACE through the issuance of a CWA Section 404 Permit (Individual or Nationwide Permit). Unavoidable impacts to RWQCB jurisdictional non-wetland Waters of the State and WoUS wetlands require a CWA Section 401 Water Quality Certification and/or Waste Discharge Permit from the RWQCB. Unavoidable impacts to CDFW jurisdictional non-riparian streambeds and riparian wetlands must be authorized by CDFW through a FGC Section 1602 Streambed Alteration Agreement. The City of Calexico shall obtain appropriate regulatory approvals for direct and indirect impacts to project areas containing state and federal jurisdictional resources.

As part of the above-referenced regulatory permit, certification, and authorization processes, a Habitat Mitigation and Management Plan (HMMP) shall be developed in conjunction with USACE field concurrence with the jurisdictional delineation results (i.e., ground-truthing) and with the direct/indirect impact acreages for disturbed riparian scrub, desert sink scrub, disturbed desert sink scrub, and unvegetated channel. The HMMP shall identify the negotiated, agreed-upon, and approved compensatory mitigation requirements for these project impacts. The mitigation approach, including the timing of enhancement/restoration/creation implementation and/or credits purchase as described in the HMMP, shall be completed and approved by the permitting agencies prior to project commencement. Such compensatory mitigation options include, but are not limited to, one or a combination of the following options:

(1) enhancement/improvement of currently disturbed areas within the BSA to improve hydrological/wetland/ecological functions through removal of non-native, invasive species for a period not less than three years or until success criteria are achieved; non-native invasive plant species control shall be performed a minimum of once a year as described in the HMMP but be no less than once a year for the monitoring period specified in the HMMP. Success criteria will be described in the HMMP, but non-native, invasive plant species percent cover shall not exceed 10 percent at the time when success criteria are achieved. Invasive plant control/monitoring shall continue as described in the HMMP until success criteria are achieved. Monitoring of special-status riparian vegetation shall occur to evaluate if the removal of non-native, invasive plants enables the existing desired vegetation community to persist at baseline (pre-project) amounts of area and vegetation health. If success criteria described in the HMMP are not achieved within a period of five years, remediation or additional mitigation shall be required.

(2) restoration (hydroseeding/planting) within the BSA to be maintained in perpetuity, with irrigation as needed, according to the success criteria specified in the HMMP. Habitat restoration methodology shall be performed as described in the HMMP but shall include active irrigation. All planted trees shall be native to the area and planted within the channel to allow tap roots to reach the water table, and existing native trees within the restoration site shall be preserved to the extent practical. Success criteria shall be as described in the HMMP but planting mortality shall not exceed 10 percent at Year 5. If habitat restoration does not meet success criteria, remediation as described in the HMMP shall be performed. A Conservation Easement or legal protection instrument approved by the permitting agencies shall be placed on the restoration site as described

in the HMMP. The existing vegetation shall also be irrigated in combination with the removal of non-native, invasive vegetation. Unless it can be demonstrated that the 3.47 cfs of secondary treated and disinfected wastewater to be returned to the affected reach of the New River will be sufficient to support up to 77 acres of riparian habitat, the restoration site shall be irrigated in perpetuity, with an adequate schedule, capacity, and configuration defined in the HMMP. Washed out irrigation materials as a result of periodic flooding during high rain events shall be replaced to maintain the restoration site during drier years. Native plant restoration shall be sufficient mitigation to allow that native vegetation community to persist at baseline or higher levels of percent cover and health. If success criteria are not achieved in ten years, remediation or additional mitigation shall be required.

(3) wetland creation (hydroseeding/planting) within the BSA to be maintained in perpetuity, according to the long-term success/performance criteria. Open water acreage shall not be less than open water acreage determined to be equivalent to baseline (pre-project) conditions as determined by Geographic Information System (GIS) analysis. Wetland conditions shall achieve success criteria identified in the HMMP. Monitoring of wetland conditions shall be specified in the HMMP. If wetland creation does not meet success criteria, remediation as described in the HMMP shall be performed. A Conservation Easement or legal protection instrument approved by the permitting agencies shall be placed on the restoration site as described in the HMMP. Id success criteria are not achieved in ten years, remediation or additional mitigation shall be required.

(4) purchase of wetland mitigation credits at a minimum one-to-one replacement ratio within an approved/authorized Mitigation Bank, preferably located within the New River watershed. Proof of purchase of available mitigation credits shall be provided to the permitting agencies prior to the initiation of vegetation removal and/or ground breaking project activities.

For the habitat restoration and/or wetland creation options listed above, the HMMP shall provide detailed site preparation, installation, and monitoring guidance including appropriate vegetation establishment and long-term success standards/performance criteria.

*Timing/Implementation:* *Prior to/during any vegetation removal or ground-disturbing activities within jurisdictional areas*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-6** A stormwater pollution prevention plan (SWPPP) shall be implemented involving best management practices (BMPs) to avoid unanticipated indirect impacts to the adjacent reach of the New River. All BMPs shall be regularly inspected for integrity and repaired or replaced as needed; this will be documented through the RWQCB online portal via the project-specific Waste Discharger Identification (WDID).

*Timing/Implementation:* *Prior to/during any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

**BIO-7** At the preconstruction meeting, a biologist shall perform Workers Environmental Awareness Program (WEAP) training for all contractors, subcontractors, and workers expected to be on-site throughout the entire construction period. The WEAP shall include a brief review of any special-status species (including habitat requirements and where they might be found) and other sensitive biological resources that could occur in and adjacent to the APE. The WEAP shall address the biological mitigation measures listed above and any others in the approved Mitigation Monitoring and Reporting Program, as well as applicable conditions and provisions of any associated environmental permits, including but not limited to preconstruction biological surveys, preconstruction installation of perimeter sediment and erosion control best management practices per the RWQCB-approved Storm Water Pollution Prevention Plan, and any recurrent nesting bird surveys (as needed). In addition, the following items shall also be addressed (at a minimum):

- On-site speed limits shall be limited to below 15 miles per hour to reduce fugitive dust levels during construction, per Imperial County Air Pollution Control District (ICAPCD) standards.

- No workers shall litter on or adjacent to the construction site. At the end of each workday, all trash shall be placed in secured containers on-site (with regular disposal timelines to approved facilities) and/or vehicles.
- No workers shall bring pets or firearms to the construction site.
- To prevent the accidental introduction of non-native, invasive plant material and/or seed stock, all vehicle tires and bottoms of shoes of workers arriving to the construction site shall be scrubbed free of dirt, mud, and debris.
- All vehicles must be kept in good maintenance condition and shall not leak fluids onto the construction site. In such cases, spills and leaks shall be cleaned up and disposed of immediately, in accordance with applicable local, state, or federal regulations, and the causes of such spills and leaks shall be immediately repaired. When staging construction equipment overnight, spill kits, secondary containment devices, spill mats, and/or other measures shall be employed to catch unanticipated leaks or spills.
- A designated biological monitor shall be responsible for ensuring that all workers adhere to the WEAP guidelines and restrictions. WEAP training sessions shall be conducted as needed for all new personnel brought onto the site.

*Timing/Implementation:* *Prior to/during any vegetation removal or ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

| | | | | |
|---|---|---|---|---|
| c) Have a substantial adverse effect on federally protected wetlands as defined in CWA Section 404 (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☒ | ☐ | ☐ |

As previously stated, Appendix C-2 details the results of jurisdictional field delineations conducted for the reach of the New River and its associated floodplain areas, as shown in Figure 2 (Overview Map). The jurisdictional features are shown in Maps 1-8 of Figure 2 in Appendix C-2; and are listed in Table 2.2.4-2 below. In these maps, the non-wetland jurisdictional features are identified as "OHWM", which refers to areas within the Ordinary High Water Mark that are regulated by U.S. Army Corps of Engineers (Waters of the U.S.), Regional Water Quality Control Board (Waters of the State), and CDFW (non-riparian streambeds). Within the BSA, these non-wetland jurisdictional features are comprised of unvegetated channel and open water (see Table 2.2.4-1). In addition, the wetland jurisdictional features are identified as "Wetlands" (regulated by USACE and RWQCB) and as "Wetlands/ Riparian" (regulated by CDFW). Within the BSA, these wetland jurisdictional features are comprised of disturbed riparian scrub, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub (see Table 2.2.4-1). No potential vernal pools or seasonal depressions were observed during the habitat assessment; therefore, no further assessment of such jurisdictional features was performed nor is required.

The new water diversion infrastructure is proposed along the southern bank and floodplain areas of the New River. Drainage Feature C is the only jurisdictional feature that would not be affected by the project. Vegetation clearance and pipeline excavation, trenching, and construction activities would result in temporary direct impacts to the remaining jurisdictional wetlands and non-wetland jurisdictional resources within the BSA. Implementation of the proposed project would directly impact 0.004 acre of USACE/RWQCB jurisdictional open water, 0.01 acre of non-wetland WoUS/Waters of the State, and 1.80 acres of wetlands; and 0.004 acre of CDFW jurisdictional open water, 0.015 acre of non-riparian streambed, and 1.80 acres of riparian wetlands. Temporary direct impacts to these jurisdictional areas could also occur in the event of accidental or unforeseen encroachment by construction workers and/or equipment.

**TABLE 2.2.4-2.**
**JURISDICTIONAL FEATURES IN THE BSA (EXISTING ACREAGES)**

| USACE/RWQCB Jurisdictional Features | Acres | CDFW Jurisdictional Features | Acres |
|---|---|---|---|
| Unvegetated Channel (non-wetland WoUS[1]) | 0.16 | Unvegetated Channel (bank-to-bank) | 0.91 |
| Open Water (non-wetland WoUS[1]) | 6.70 | Open Water | 6.70 |
| Wetlands[2] – WoUS[1] | 81.04 | Wetlands[2] | 81.04 |
| **TOTALS** | **87.90** | | **87.90** |

[1] WoUS = Waters of the U.S. [2] Disturbed riparian scrub, bush seepweed scrub, desert sink scrub, and disturbed desert sink scrub.

As previously discussed, the project could indirectly cause, and/or exacerbate, adverse effects to wetland functions of these riverine habitats, possibly resulting in potential habitat type-conversion. Implementation of the proposed project would indirectly impact 6.70 acres of USACE/RWQCB jurisdictional open water, 0.03 acre of non-wetland WoUS/Waters of the State, and 79.24 acres of wetlands; and 6.70 acre of CDFW jurisdictional open water, 0.04 acre of non-riparian streambed, and 79.24 acres of riparian wetlands.

All of the potential project impacts to the jurisdictional resources listed above are considered significant. Implementation of mitigation measure BIO-5 would reduce these impacts to less than significant.

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

**Less Than Significant with Mitigation Incorporated.** Wildlife corridors refer to established local and regional migration routes commonly used by resident and migratory species for passage from one geographic location to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range.

As the New River flows out of the west end of the site, it passes under a second elevated pipeline that conveys the waters of the All-American Canal as it crosses over the river. The New River and riparian scrub habitat continue to the northwest after leaving the site, providing a potential avenue of connectivity for wildlife utilizing the agricultural fields and natural habitats beyond. For example, the riparian scrub was observed to be used by numerous native bird species, including red-winged blackbird, semipalmated plover, black-necked stilt, and killdeer, some of which use the area to nest. During the biological resources survey, an active black-necked stilt nest with four eggs was found on a mudflat adjacent to the riparian area, and a killdeer adult and fledgling were observed foraging together on the riverbank. The riparian area also likely serves as a foraging area for pocketed free-tailed bat, western mastiff bat, and western yellow bat.

Because these on- and off-site riverine areas are considered good avian and raptor nesting and foraging habitats, providing a good prey base and suitable hunting habitat for resident, wintering, and transient bird populations, portions of the property could be used as a significant local or regional wildlife corridor and/or linkage to the Salton Sea, which is approximately 65 miles to the northwest. Project construction activities are not expected to result in direct impacts to such potential wildlife corridor movements, but they could have similar adverse indirect effects as described above in the analysis of project impacts on sensitive natural communities/habitats. This impact is considered potentially significant. Implementation of mitigation measures BIO-1 through BIO-7 would reduce this impact to less than significant.

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

**No Impact.** One of the goals of the City's General Plan Conservation/Open Space Element is to identify, protect, and improve significant ecological and biological resources in and around the city through implementation of several defined objectives. Listed below are those specific objectives applicable to the project, followed by a statement of project conformance:

- Support regional and sub-regional efforts to conserve ecological and biological resources in the city and surrounding areas. *The project conforms with this objective through implementation of mitigation measure BIO-5. Specifically, as a condition of the regulatory agency approvals for the project, it is expected that any on-site and/or off-site mitigation areas will be required to be placed in a Conservation Easement to ensure their perpetual management and protection.*
- Support efforts to integrate natural wetlands treatment systems as part of the New River Improvement Project. *The project conforms with this objective through implementation of mitigation measure BIO-5. Specifically, any on-site wetland habitat restoration and/or creation mitigation areas, as required by the regulatory agency approvals and HMMP for the project, are expected to increase, enhance, and improve the current wetland functions (i.e., natural wetlands treatment systems) in this reach of the river by providing new and additional wetland areas for the capturing and filtering of urban runoff pollutants.*
- Require projects of one acre or more involving alteration or development of undisturbed land be required to submit a biological survey conducted by a qualified biologist to the city. A focused biological study may be required if habitat that could potentially support a listed or threatened species exists on the site. *The project conforms with this objective through the preparation of Appendices B-1 and B-2.*

For the reasons outlined above, the project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur and no mitigation measures are required.

| | | | | |
|---|---|---|---|---|
| f) Conflict with the provisions of an adopted habitat conservation plan (HCP), natural community conservation plan (NCCP), or other approved local, regional, or state HCP? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The city and the project site are not within the jurisdiction of any adopted HCP, NCCP, or other approved local, regional, or state HCP. Therefore, no impact would occur and no mitigation measures are required.

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Figure 5 Artificial Burrow Locations

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| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.5. CULTURAL RESOURCES

A Cultural Resources Study was prepared for the proposed project by Michael Baker International (2018a). The findings of the study are summarized in the impact discussions below; the full report is provided in Appendix D.

Would the project:

| | | | | |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Historic structures and sites are defined by local, state, and federal criteria. A site or structure may be historically significant if it is locally protected through a local general plan or historic preservation ordinance. The State of California, through the Office of Historic Preservation (OHP), also maintains an inventory of those sites and structures that are considered historically significant. Finally, the US Department of the Interior has established specific guidelines and criteria that indicate the manner by which a site, structure, or district is to be defined as having historic significance and in the determination of its eligibility for listing on the National Register of Historic Places (National Register). Once a site, structure, or district has been determined to be eligible for listing on the National Register, certain protocols related to its preservation must be adhered to. To be considered eligible for the National Register, a property must meet the National Register Criteria for Evaluation. This evaluation involves the examination of the property's age, integrity, and significance. A property may be historic if it is old enough to be considered historic (generally considered to be at least 50 years old and appearing the way it did in the past). Buildings and properties will qualify for a listing on the National Register if they are integral parts of districts that meet the criteria identified.

A Cultural Resources Study was performed by Michael Baker International in October 2018; refer to Appendix D. The project is partially funded by the State Revolving Fund loan program administered by the State Water Resources Control Board (SWRCB). Since the project will be funded using federal monies, the project is considered an undertaking as defined at 36 Code of Federal Regulations (CFR) Section 800.16(y) and is subject to Section 106 of the National Historic Preservation Act (NHPA). Further, since the project will affect waters of the United States, the project must meet the requirements of Sections 401 and 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act as well as Section 106 of NHPA, which requires that every federal agency account for the effects of its undertakings on historic properties. The Cultural Resources Study was prepared in compliance with SWRCB and USACE Section 106 guidelines and the California Environmental Quality Act (CEQA).

A cultural records search for the New River Improvement Project was requested on April 20, 2018 (Michael Baker 2018a). The records search was conducted for the Area of Potential Effects (APE) with a quarter-mile search radius. The South Coastal Information Center (SCIC) of the California Historical Resources Information System, California State University, San Diego, an affiliate of the California OHP, is the official state repository of cultural resource records and reports for Imperial County. SCIC records search indicated that 10 cultural resource studies have been conducted within portions of the study area. Approximately 50 percent of the study area has been previously studied.

The research conducted determined that there is one cultural resource located adjacent to the APE which is the All-American Canal (P-13-007130/CA-IMP-7130H). The canal was constructed by the Bureau of Reclamation between 1934 and 1940 as part of the Yuma Water Project. The concrete-lined, 82-mile-long canal transports water from the Colorado River to the Imperial and Coachella valleys. The All-American Canal was determined eligible for listing in the National Register under Criterion A for its association with agricultural development of Imperial County and under Criterion C for its engineering and construction.

A literature review was also conducted for the project that included the review of publications, maps, and websites for archaeological, ethnographic, historical, and environmental information about the study area. The research confirmed that the All-American Canal first appeared on historical maps in 1940. Prior to 1940, the study area was mostly covered by the prehistoric Cameron Lake (Michael Baker 2018a).

An archaeological pedestrian field survey was conducted on April 23, 2018 as part of the cultural resources investigation. An area of "high" prehistoric and historic-period archaeological sensitivity was identified at the highest elevation in the study area, where a former US Government camp, which consisted of an emigrant camp and a soldiers camp, known as Camp Salvation was located in 1849 and which could have been previously been occupied by Native Americans. Two historic-period archaeological sites, MBI-1 and MBI-2, were identified in the zone of "high" sensitivity. These resources are consistent with 1950s historic refuse debris and are not associated with Camp Salvation or Native American uses. Both of these sites are located within the study area but outside of the CEQA project area and the USACE/SWRCB APE. The project does not propose any ground disturbing activities that would impact either MBI-1 or MBI-2, or within the "high" sensitivity zone. Therefore, the project is not anticipated to impact a historical resource. Impacts are considered to be less than significant.

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

**Less Than Significant with Mitigation Incorporated.** Michael Baker International submitted a Sacred Lands File and Native American Contacts List Request to the Native American Heritage Commission (NAHC) on April 5, 2018. The NAHC responded on April 17, 2018, stating that the Sacred Lands File search had negative results. The NAHC also provided a list of tribes culturally affiliated with the APE.

As previously stated in Response a), cultural resources identified by the SCIC records search and/or by the archaeological pedestrian field survey completed for the project include the All-American Canal located adjacent to the CEQA project area and USACOE/SWRCB APE, and two historic-period debris scatters (MBI-1 and MBI-2) located adjacent to the CEQA project area but outside of the USACOE/SWRCB APE. Neither the canal not the debris scatters would be affected by project-related ground disturbance activities. No other resources determined to be of significance were identified.

Although the proposed project would not cause a substantial adverse change in the significance of a known archaeological resource pursuant to CEQA Guidelines Section 15064.5, there is a potential for project-related construction to impact unknown or previously unrecorded archaeological resources. For this reason, mitigation measure CUL-1 would be implemented to ensure that if cultural resources are inadvertently encountered during project construction activities, proper identification, evaluation and treatment of any significant resources would be undertaken. Implementation of mitigation measure CUL-1 would reduce potential impacts to less than significant.

Mitigation Measures

**CUL-1** If unidentified cultural materials are encountered during project construction, all work within 50 feet shall be halted until an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and/or historical archaeology can evaluate the findings and make recommendations. The project contractor shall divert, direct or temporarily halt ground-disturbing activities in the area of discovery to allow evaluation of potentially significant historical resources. The archaeologist shall immediately notify City of Calexico Public Works Department staff of such findings at the time of discovery. The significance of the discovered resource(s) shall be determined by the archaeologist, in consultation with the Public Works Department and the Native American community. The Public Works Department must concur with the evaluation procedures before grading activities are allowed to resume. For significant cultural and/or historical resources, a Research Design and Data Recovery Program shall be prepared and carried out to mitigate impacts before grading activities in the area of discovery is allowed to resume. Any human bones of Native American origin shall be turned over to the appropriate Native American group for reburial.

All materials collected shall be cleaned, cataloged and permanently curated with an appropriate institution. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species, and specialty studies shall be completed as appropriate. Additionally, any sites and/or features encountered during the monitoring program shall be recorded on the

applicable Department of Parks and Recreation forms (DPR 523A/B, et al.) and submitted to an appropriate cultural resources repository with the final monitoring results report.

*Timing/Implementation:* *During any ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

| | | | | |
|---|---|---|---|---|
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant with Mitigation Incorporated.** Paleontological resources, or fossils, are the remains of extinct organisms and they provide the only direct evidence of ancient life. Section 02(8) of the Federal Land Policy and Management Act of 1976 mandates the treatment of paleontological resources as having scientific value. Scientifically significant paleontological resources are defined as vertebrate fossils that are identifiable to a particular taxon and/or element, noteworthy occurrences of invertebrate and plant fossils, and vertebrate trackways. In general, surface-disturbing activities, such as grading and excavation, have the potential to cause adverse effects on surface and subsurface paleontological resources. Direct impacts include destruction due to breakage and fragmentation. Indirect impacts may result from increased accessibility to paleontological resources resulting in an increased likelihood of looting or vandalism.

Geologic deposits at the surface of the APE consist of soil types that accumulated between the latest Pleistocene and late Holocene eras. Soils in the project area include Imperial silty clay, Indio-Vint complex, Fluvaquents, Meloland very fine sandy loam, and Imperial-Glenbar silty clay loam (Michael Baker 2018a). These soils are not conducive to the preservation of fossil materials. Sedimentary deposits, such as the alluvium that underlies the project area, are considered to have low paleontological potential because the soil deposits are too recent to contain in-situ fossils. Project-related construction would not likely extend into any fossil-containing bedrock layers. However, the potential for the discovery of unknown paleontological resources cannot be completely discounted. Mitigation measure CUL-2 is required in the event that fossil resources are encountered during construction activities. Implementation of mitigation measure CUL-2 would impacts to paleontological resources to less than significant.

Mitigation Measures

**CUL-2** Construction personnel involved in excavation and grading activities shall be informed of the possibility of discovering fossils at any location and the protocol to be followed if fossils are found. A professional meeting the Society of Vertebrate Paleontology standards shall provide preconstruction training. The City of Calexico shall ensure the project grading plan notes include specific reference to the potential discovery of fossils. If potentially unique paleontological resources (fossils) are inadvertently discovered during project construction, work shall be halted immediately within 50 feet of the discovery, the city shall be notified, and a professional paleontologist shall be retained to determine the significance of the discovery. The paleontologist shall establish procedures for paleontological resource surveillance throughout project construction and shall establish, in cooperation with the city as the project applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of fossils. Excavated finds shall be offered to a state-designated repository such as the Museum of Paleontology at the University of California, Berkeley, or the California Academy of Sciences in accordance with applicable regulations.

*Timing/Implementation:* *During any ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

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

**Less Than Significant with Mitigation Incorporated.** No human remains were identified in the project area through the records search or the field survey conducted as part of the project's archaeological assessment.

However, unidentified human remains, whether as part of a prehistoric cemetery, an archaeological site, or an isolated occurrence, could be present below the ground surface.

While not anticipated, if human remains are encountered during project construction, California Health and Safety Code and State CEQA Guidelines Section 15064.5(e) requires that work in the immediate area must halt, the remains must be protected, and the county coroner must be notified immediately. If the remains are determined to be Native American, the Native American Heritage Commission must be notified (typically by the coroner) within 24 hours, as required by Public Resources Code Section 5097. The NAHC would identify and contact a most likely descendant, who would be given the opportunity to provide recommendations for the treatment of the remains within 48 hours of being granted access to the site. Compliance with these requirements and with mitigation measure CUL-3 would ensure a less than significant impact on human remains.

Mitigation Measures

**CUL-3** As specified by California Health and Safety Code Section 7050.5, if human remains are found on the project site during construction or ground disturbing activities, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the Imperial County coroner's office. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains shall occur until the coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area is protected and consultation and treatment can occur as prescribed by law. As further defined by state law, the coroner shall determine within two working days of being notified if the remains are subject to his or her authority. If the coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission within 24 hours. The Native American Heritage Commission shall make a determination as to the most likely descendent. The most likely descendant shall inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods within 48 hours of being allowed access to the site and provide recommendations for the proper treatment of the remains and/or associated grave goods.

*Timing/Implementation:* *During any ground-disturbing activities*

*Enforcement/Monitoring:* *City of Calexico Public Works Department*

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.6. GEOLOGY AND SOILS

Leighton Consulting, Inc. (Leighton) prepared a geotechnical engineering report for the proposed project in 2018. The report in its entirety can be found in Appendix E.

Would the project:

| | | | | |
|---|---|---|---|---|
| a) Expose people or structures to 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando earthquake which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard (CGS 2017). An active fault is one that shows displacement within the last 11,000 years and therefore is considered more likely to generate a future earthquake. The Alquist-Priolo Earthquake Fault Zoning Act requires the California State Geologist to establish regulatory zones (known as Earthquake Fault Zones; prior to January 1, 1994, these zones were known as Special Studies Zones) around the surface traces of active faults that pose a risk of surface rupture and to issue appropriate maps to mitigate the hazard of surface faulting to structures for human occupancy.

The strength of an earthquake is generally expressed in two ways: magnitude and intensity. The magnitude is a measure that depends on the seismic energy radiated by the earthquake as recorded on seismographs. The intensity at a specific location is a measure that depends on the effects of the earthquake on people or buildings and is used to express the severity of ground shaking. Although there is only one magnitude for a specific earthquake, there may be many values of intensity (damage) for that earthquake at different sites. The most commonly used magnitude scale today is the moment magnitude (Mw) scale. Moment magnitude is related to the physical size of fault rupture and the movement (displacement) across the fault, and it is therefore a more uniform measure of the strength of an earthquake. The seismic moment of an earthquake is determined by the resistance of rocks to faulting multiplied by the area of the fault that ruptures and by the average displacement that occurs across the fault during the earthquake. The seismic moment determines the energy that can be radiated by an earthquake and hence the seismogram recorded by a modern seismograph (CGS 2002). The most commonly used scale to measure earthquake intensities (ground shaking and damage) is the Modified Mercalli Intensity (MMI) Scale, which measures the intensity of an earthquake's effects in a given locality and is based on observations of earthquake effects at specific places. On the Modified Mercalli Intensity Scale, values range from I to XII. While an earthquake has only one magnitude, it can have various intensities, which decrease with distance from the epicenter (CGS 2002).

The project site is in a seismically active area. The geotechnical report indicates that there are no known active or potentially active faults (i.e., faults that exhibit evidence of ground displacement in the last 11,000 years and 2,000,000 years, respectively) underlying the site. The closest known active regional fault is the Cerro Prieto fault, approximately 4.5 miles west of the site and capable of a magnitude 7.4 event (Leighton 2018). The Imperial fault is roughly 7 miles to the east, where surface rupture occurred in 1940, and is considered capable of a magnitude 7.0 event (Leighton 2018). No active faults are known to cross the project site; therefore, the probability of surface fault rupture is considered low. The impact would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 2) Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Southern California has numerous active seismic faults that can subject people to potential earthquake- and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized as either primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Secondary hazards due to fault proximity include ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

The project site is in Southern California, a seismically active area, and the relatively thick deposits of youthful lake sediment and alluvium may also bury unknown faults at depth. There are no known active faults on or in the immediate vicinity of the project site. However, the project site has been and will continue to be directly affected by seismic activity to some degree. No buildings or habitable structures would be constructed as part of the project that would be susceptible to secondary hazards which may impact local residents. Given that active faults are not adjacent to the project site, and no buildings are proposed, it can be concluded that the site would not be affected by ground shaking more than other areas in Southern California. Impacts are considered less than significant.

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

**Less Than Significant Impact.** Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a viscous fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: (1) shallow groundwater; (2) low-density, fine, non-plastic sandy soils; and (3) high-intensity ground motion. Effects of liquefaction can include sand boils, ground surface subsidence/settlement, slope instability, and bearing capacity failures below structural foundations.

According to the geotechnical report, the three general conditions for liquefaction susceptibility exist at the project site. The current groundwater levels along the alignment vary from 3 to 30 feet below the existing ground surface, and project elevations range between 53 and 65 feet. Based on subsurface exploration and laboratory testing conducted by Leighton, site soils predominantly consist of clays overlying very loose to dense sands. Additionally, the project site is likely to experience ground shaking from earthquakes occurring along active faults in the region.

Leighton performed liquefaction analysis of the soil profiles encountered in the cone penetration test and hollow-stem auger borings. The results of the testing indicated that several layers of the soils along the alignment, at depths between 10 and 40 feet below grade, are potentially susceptible to liquefaction. The effect of liquefaction is expected to be settlement due to the post-liquefaction consolidation of the soils' loss of strength. The seismically induced settlement of these strata consisted of liquefaction settlement below the groundwater table and dynamic settlement of loose sand above the groundwater table. The settlement was estimated to result in a maximum cumulative settlement on the order of 1 to 10 inches at the ground surface. The total settlement below the pipeline bedding is expected to be less than the ground surface settlement and can be estimated after selection of the final alignment.

The project site is subject to the potential for liquefaction (above groundwater) and settlement (below groundwater) to occur. Project construction and design would be required to conform with recommendations identified in the geotechnical report and with all applicable local and state engineering requirements to ensure that adverse effects from such conditions do not represent a public risk. The project is limited to components associated with diversion of the New River and with redirecting flows from the existing wastewater treatment plant. No habitable buildings or other structures that could be subject to liquefaction from seismic-related ground failure are proposed. This impact is considered less than significant.

The project site is not located near the coast of an ocean that could produce a tsunami, a body of water that could produce a seiche, or steep slopes that could create mudflow. The project site is approximately 97 miles

east of the Pacific Ocean and approximately 32 miles southeast of the Salton Sea. Therefore, impacts from seismic-related ground failure relative to tsunami/seiche events would be less than significant.

| | | | | |
|---|---|---|---|---|
| 4) Landslides? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Several formations in the region are particularly prone to landsliding. These formations generally have high clay content and mobilize when they become saturated with water. Other factors, such as steeply dipping bedding that projects out of the face of the slope and/or the presence of fracture planes, also increase the potential for landsliding. No landslides or indications of deep-seated landsliding were indicated at the site during field exploration or review of available geologic literature, topographic maps, and stereoscopic aerial photographs conducted by Leighton (2018; Appendix E). Furthermore, field reconnaissance and local geologic maps indicate the site is generally underlain by favorable marine environment deposits. Therefore, the potential for impacts resulting from significant landslides or large-scale slope instability at the site is considered less than significant.

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

**Less Than Significant Impact.** Soil erosion may result during construction of the proposed project, as grading and construction can loosen surface soils and make soils susceptible to the effects of wind and water movement across the surface. However, all development associated with the proposed project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit for construction activities (discussed in further detail in subsection 2.2.9, Hydrology and Water Quality). Compliance with the NPDES would minimize effects from erosion and ensure consistency with Colorado River Regional Water Quality Control Board requirements, which establish water quality standards for the region's groundwater and surface water. After construction concludes, existing conditions would be reestablished to reduce erosion impacts during operation of the proposed project. Impacts 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Refer to Response a.4), above. Subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. Subsidence may be caused by a variety of human and natural activities, including earthquakes. The geotechnical report does not identify any issues associated with subsidence at the project site.

Leighton (2018; Appendix E) performed a lateral spread displacement analysis to determine whether site conditions could potentially result in lateral spreading. According to the geotechnical report, there is a potential for lateral spreading to occur at the site due to the presence of liquefiable soils, slopes, and the proximity to the New River. The magnitude of the lateral spreading is difficult to predict with accuracy. Minor lateral spreading is not expected to extensively impact the proposed project. If significant lateral spreading occurs, it could potentially damage the diversion structure, outlet structure, pump-back structure and line, and/or river encasement. However, there are no project components that would significantly place the general public at risk, and the proposed project would not result in on- or off-site lateral spreading. The project is limited to components associated with water treatment (and associated trash removal), with no buildings or habitable structures proposed that could be subject to lateral spreading from unstable soils. This impact is considered less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Be located on expansive soil, as defined in the latest Uniform Building Code, creating substantial risk to life or property? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** According to the geotechnical report (Leighton 2018; Appendix E), the project site contains some clay soil components that could have expansive soil properties. However, the project does not include buildings or habitable structures and would not create a risk to life or property. This impact is considered less than significant.

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

**No Impact.** The project does not include buildings or habitable structures that require septic tanks or the use of alternative wastewater disposal systems. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.7. GREENHOUSE GAS EMISSIONS

Would the project:

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

**Less Than Significant Impact**. While the City of Calexico has not adopted its own thresholds for greenhouse gases (GHG), the city follows guidance developed by the California Air Pollution Control Officers Association (CAPCOA), which is a statewide association of experts on the topic of GHG emissions. CEQA allows lead agencies to rely on thresholds recommended or adopted by other agencies. A screening threshold of 900 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year was developed by analyzing the capture of 90 percent or more of future discretionary development for residential and commercial projects and is based on guidance in CAPCOA's (2008) *CEQA & Climate Change* report. That report references an annual 900 metric ton guideline as a conservative threshold for requiring further analysis and is based on the number of vehicle trips, electricity generation, natural gas consumption/combustion, water usage, and solid waste generation associated with a project. Thus, the 900 $MTCO_2e$ per year screening threshold was used to determine the significance of GHG emissions associated with the proposed project. It should also be noted that this threshold is among the most conservative proposed or used by any agency in California.

The proposed project would result in direct and indirect emissions of carbon dioxide ($CO_2$), nitrous oxide ($N_2O$), and methane ($CH_4$) and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities and from mobile sources, while indirect sources include emissions from electricity consumption. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions Estimator Model (CalEEMod) relies on project-specific land use data to calculate emissions. Table 2.2.7-1, Estimated Greenhouse Gas Emissions, presents the estimated $CO_2$, $N_2O$, and $CH_4$ emissions from the proposed project. CalEEMod outputs are contained in Appendix B, Air Quality/Greenhouse Gas Technical Data. Projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of the project (SCAQMD 2008). The amortized construction emissions are added to the annual average operational emissions. As shown in Table 2.2.7-1, the total amount of project-related GHG emissions would not exceed the CAPCOA greenhouse gas screening threshold of 900 $MTCO_2e$ per year. Therefore, impacts would be less than significant.

**TABLE 2.2.7-1**
**ESTIMATED GREENHOUSE GAS EMISSIONS**

| Source | $CO_2$ | $CH_4$ | | $N_2O$ | | Total Metric Tons of $CO_2e$[3] |
|---|---|---|---|---|---|---|
| | Metric Tons/Year[1] | Metric Tons/Year[1] | Metric Tons of $CO_2e$[2] | Metric Tons/Year[1] | Metric Tons of $CO_2e$[2] | |
| **Direct Emissions** | | | | | | |
| Construction (amortized over 30 years) | 23.87 | 0.00 | 0.18 | 0.00 | 0.00 | 24.05 |
| Mobile Source | 7.99 | 0.00 | 0.02 | 0.00 | 0.00 | 8.01 |
| *Total Direct Emissions[3]* | | | | | | |
| **Indirect Emissions** | | | | | | |
| Energy (pump system) | 264.02 | 0.01 | 0.15 | 0.00 | 0.38 | 264.56 |
| *Total Indirect Emissions[3]* | *264.02* | *0.01* | *0.15* | *0.00* | *0.38* | *264.56* |
| ***Total Project-Related Emissions[3]*** | ***288.61 $MTCO_2e$*** | | | | | |
| ***CAPCOA Threshold*** | ***900 $MTCO_2e$*** | | | | | |
| ***Project Exceed Thresholds?*** | ***No*** | | | | | |

Notes:
1. Emissions calculated using the CalEEMod version 2016.3.2.
2. Carbon dioxide equivalent values calculated using the EPA Website, *Greenhouse Gas Equivalencies Calculator*, https://www.epa.gov/ energy/greenhouse-gas-equivalencies-calculator, accessed June 2018.
3. Totals may be slightly off due to rounding.

Refer to Appendix B, Air Quality/Greenhouse Gas Technical Data, for detailed model input/output data.

Construction Greenhouse Gas Emissions

Project-related GHG emissions would result from construction activities, including the transportation of materials, construction equipment, and construction workers to and from the project site. Local project construction would result in direct emissions of $CO_2$, $N_2O$, and $CH_4$ from construction equipment operations. Transport of materials and construction workers to and from the project site would also result in GHG emissions. Construction activities would be temporary and would cease upon project completion. Table 2.2.7-1 presents the project's estimated construction emissions, including for construction of all project components. Construction GHG emissions are typically summed and amortized over a project's lifetime, which is assumed to be 30 years for the proposed project. As shown in Table 2.2.7-1, the project would result in approximately 24.05 $MTCO_2e$ per year of GHG emissions during construction activities.

Operational Greenhouse Gas Emissions

The project would include a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international boundary with Mexico. Project operations would not result in any new indirect operational area source GHG emissions, as the proposed facilities would be powered by electricity. Vehicle trips (mobile source) emissions would be nominal and only associated with maintenance and inspection activities and nominal employee trips associated with the pump-back system. Consequently, the project's operational GHG emissions would primarily consist of energy consumption for equipment operations. Operational emissions were calculated based on Imperial Irrigation District (IID) emissions factors from CalEEMod. The project's energy consumption would be approximately 458,000 kilowatt-hours per year. As shown in Table 2.2.7-1, mobile GHG emissions associated with the project would be approximately 8.01 $MTCO_2e$ per year, and energy-source GHG emissions from project operations would be approximately 264.56 $MTCO_2e$ per year.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

Total Greenhouse Gas Emissions

As indicated in Table 2.2.7-1, project construction and operations combined would result in approximately 288.61 $MTCO_2e$ per year for all project components (see Appendix B), which is below the screening threshold of 900 $MTCO_2e$ per year. Therefore, impacts pertaining to the generation of GHG emissions would be less than significant.

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

**Less Than Significant Impact**. Currently there is no adopted plan, policy, or regulation for the purpose of reducing GHG emissions that is applicable to the project. The quantitative analysis above demonstrates that the project's potential GHG emissions are below the 900 $MTCO_2e$ per year screening threshold utilized by CAPCOA. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. A less than significant impact would occur in this regard.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.8. 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.**

Short-Term Impacts

Project construction activities could result in the transport, use, and disposal of hazardous materials such as gasoline, diesel fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides. Although care will be taken when transporting, using, and disposing of these materials, there is a possibility that upset or accidental conditions may arise which could release hazardous materials into the environment. Accidental releases of hazardous materials are those that are unforeseen or that result from unforeseen circumstances, while reasonably foreseeable upset conditions are those release or exposure events that can be anticipated and planned for.

Project construction activities would occur in accordance with all applicable local standards set forth by the City of Calexico, as well as state and federal health and safety requirements that are intended to minimize hazardous materials risk to the public, such as California Division of Occupational Safety and Health (Cal/OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Protection (CalARP) Program, and the California Health and Safety Code. The construction contractor would be required to implement such regulations relative to the transport, handling, and disposal of any hazardous materials, including the use of standard construction controls and safety procedures that would avoid or minimize the potential for accidental release of such substances into the environment. In addition, as a condition of approval, the project is required to comply with Calexico Municipal Code Chapter 8.38, Mandatory Construction and Demolition Debris Recycling Program, which ensures the removal and disposal of all construction- and demolition-related activities. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by state and local laws. Construction impacts are considered less than significant.

Long-Term Impacts

The project is intended to address the public health threat to the residents of Calexico from the polluted condition of the New River. The State of California's Clean Water Act (CWA) Section 303(d) lists the New River as impaired by numerous constituents and is a State of California priority for cleanup purposes. The New River runs north from Mexico and is threatened by discharges of waste and/or storm water runoff from domestic, agricultural and industrial sources.

To help address these issues, the proposed project would intercept flows of the New River just north of the international boundary via an underground pipe that would bypass the populated area of southern Calexico and discharge the water to the east of the All-American Canal. The proposed project would not treat the captured water from the New River; rather, the project would divert existing river flows away from the city where it can safely be discharged downstream. There is no potential for the release of hazardous materials through this process, as the condition of the water in the river would not be treated or otherwise altered as a result of the proposed improvements.

The existing Calexico Wastewater Treatment Plant, located immediately south of the New River, currently releases treated water back into the New River near the location of the plant. The proposed project would relocate the wastewater plant's existing treated water disposal site to a location immediately downstream of the proposed New River bypass encasement diversion structure to help counter the loss of water to the riparian habitat in the existing river alignment due to the proposed diversion of the river flows. The released treated water would be significantly cleaner than the current quality of the New River in the portion of the river affected by the

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

proposed improvements. The project would not substantially change existing operations at the wastewater treatment plant or substantially increase the potential for a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials associated with operations. 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.**

Short-Term Impacts

Construction activities associated with the proposed project could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. There is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. If not cleaned up immediately and completely, the hazardous substances can migrate into the soil or enter a local stream or channel, causing contamination of soil and water. Human exposure to contaminated soil or water can have potential health effects from a variety of factors, including the nature of the contaminant and the degree of exposure.

Removal and disposal of hazardous materials from the project site would be conducted by a permitted and licensed service provider. Any handling, transporting, use, or disposal of such materials would comply with all applicable federal, state, and local agencies and regulations, including the US Environmental Protection Agency (EPA), the Resource Conservation and Recovery Act (RCRA), the California Department of Transportation (Caltrans), and the California Department of Toxic Substances Control (DTSC), which is the Certified Unified Program Agency (CUPA) for Imperial County. Therefore, short-term construction impacts associated with hazardous materials would be less than significant.

Long-Term Impacts

Please refer to the discussion of Long-Term Impacts under Response a), above.

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

**Less Than Significant Impact.** The project site is not located within 0.25 mile of an existing or proposed school. The nearest school is Aurora High School, approximately 0.5 miles northeast of the project site. Federal, state, and local regulations are in place to prevent the emission of hazardous materials, substances, or waste during storage, use, or transport. The proposed project would be required to comply with all existing regulations regarding the handling of hazardous materials. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| 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? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** A search of government hazardous materials databases (EnviroStor, GeoTracker) determined that no active reported hazardous materials sites are located on the project site (DTSC 2018; SWRCB 2018). The nearest hazardous materials site is the Calexico Gun Club located on West 2nd Street near the proposed trash

screen and diversion structure. However, this case has been closed and poses no threat to the New River Improvement Project; refer to Appendix F. No impact would occur in this regard.

| | | | | |
|---|---|---|---|---|
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** The project site is less than 2 miles from Calexico International Airport, which is directly south and west of the project site. The project site is in the area covered by the Imperial County Airport Land Use Compatibility (ALUC) Plan for Calexico International Airport (Imperial County ALUC 1996). Due to the linear nature of the project, it traverses Compatibility Zones A—Runway Protection Zone or within Building Restriction Line, B1—Approach/Departure Zone and Adjacent to Runway, and C—Common Traffic Pattern. Compatibility Zone A is identified as having a high risk from airport activity, while Compatibility Zones B1 and C have substantial and limited risks, respectively. However, the proposed project would not develop uses that would be prohibited in Compatibility Zones A, B1, and C, nor would it present a new land use such as residential, commercial, or industrial components that would require density restrictions in these compatibility zones. In addition, the project would not have features that would obstruct or hinder flight operations at Calexico International Airport. Instead, the proposed project would result in a continuation of the existing wastewater treatment operations. No substantial change with regard to safety hazards for people residing or working in the project area would occur with project implementation. Therefore, impacts are considered less than significant.

| | | | | |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The closest private airstrip to the project site is the Johnson Brothers airstrip, approximately 1.5 miles east of the project site. Due to the distance to the airstrip, the project would not result in a safety hazard to people in the project area. No impact would occur.

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

**Less Than Significant Impact.** The Safety Element of the City's General Plan addresses emergency operating procedures and evacuation routes for the General Plan area. Calexico is surrounded by open and unpopulated areas with two major evacuation routes (State Route [SR] 111 and SR 98) leading to Interstate 8 (I-8). The construction and operation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. In addition, the proposed project would comply with the Imperial County Emergency Plan, which addresses extraordinary emergency situations. During both construction and operation, the project would be consistent with all emergency procedures in local, state, and federal guidelines. In addition, the proposed project does not present conditions that could reasonably be expected to result in an emergency. Ingress/egress from the project site will remain unchanged from existing conditions, as will operations. Therefore, the project would not interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** According to the Imperial County Fire Hazard Severity Zone Maps for State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs) prepared by the California Department of Forestry and Fire Protection (2007a, 2007b), the project site is not in an area characterized as either (1) a

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

wildland area that may contain substantial forest fire risk and hazard or (2) a very high fire hazard severity zone. In addition, the Calexico General Plan Safety Element states that the city has a low risk of damage from wildfires because the undeveloped areas surrounding the city are either irrigated farmland or sparsely vegetated desert land. Therefore, the development and operation of the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. A less than significant impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.9. HYDROLOGY AND WATER QUALITY

Would the project:

| | | | | |
|---|---|---|---|---|
| a) Violate any water quality standards or waste discharge requirements? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.**

Short-Term Impacts

Construction activities require the use of gasoline- and diesel-powered heavy equipment, such as bulldozers, backhoes, bobcats, and small pickup trucks. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances could be used during construction. Construction activities could promote soil erosion, which could result in the discharge of sediment to adjacent drainages.

Sedimentation would degrade the water quality of receiving waters. Hazardous materials associated with construction equipment, such as fuels, oils, antifreeze, coolants, and other substances, could adversely affect water quality if inadvertently released to surface waters. An accidental release of any of these substances could degrade the water quality of the runoff and add pollution to local waterways. The most likely runoff constituent of concern from the project site would be sediment created by soil disturbance during or immediately after construction.

The National Pollutant Discharge Elimination System (NPDES) storm water permitting program regulates storm water quality from construction sites. The City of Calexico would be required to prepare a storm water pollution prevention plan (SWPPP) for coverage under the statewide storm water discharge NPDES permit. The SWPPP would contain a site map(s) delineating the construction site perimeter, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list any best management practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program.

Specific BMPs that may be applicable would include the establishment of sediment basins and an erosion control perimeter around active construction and contractor layout areas, silt fencing, jute netting, straw wattles, or other appropriate measures to prevent sediment from leaving the construction area. These temporary features serve to trap and absorb pollutants and sediments before they can leave the area. Construction contractors would be made aware of the required BMPs and good housekeeping measures for the project site and associated construction staging areas. Construction debris and waste materials would be collected at the end of each day and properly disposed in trash or recycle bins.

Furthermore, the project is required to comply with the Construction General Permit (CGP), which requires that construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development, apply for coverage for discharges under the CGP by submitting a Notice of Intent for coverage, developing a SWPPP, and implementing best management practices to address construction site pollutants. Therefore, impacts are considered less than significant.

Long-Term Impacts

The State of California's Clean Water Act (CWA) Section 303(d) lists the New River as impaired by numerous constituents and is a State of California priority for cleanup purposes. The New River runs north from Mexico and is threatened by discharges of waste and/or storm water runoff from domestic, agricultural and industrial sources. Such pollution has the potential to affect public health, weaken healthy ecosystems for wildlife, and contribute to water quality problems as the New River flows to the Salton Sea.

To help address these issues, the proposed project would intercept flows of the New River just north of the international boundary via an underground pipe that would bypass the populated area of southern Calexico and

discharge the water to the east of the All-American Canal. The proposed project would not treat the captured water from the New River; instead, the project would merely divert the existing river water away from the city to a place where it can safely be discharged downstream. Therefore, the bypass encasement would not impact water quality standards or water discharge requirements.

As stated previously, the Calexico Wastewater Treatment Plant currently releases treated water back into the New River near the location of the plant. The proposed project would relocate the wastewater plant's existing treated water disposal site to a location immediately downstream of the New River bypass encasement diversion structure to help counter the loss of water to the riparian habitat in the existing river alignment due to the proposed diversion of the river. The rerouted treatment pipe, or New River pump-back system (NRPBS), would be an underground encased pipe that would outfall just south of 2nd Street at the proposed diversion structure. The NRPBS would convey, on average, approximately 2.25 mgd (3.47 cfs) back to the New River. The average flow is based upon current wastewater treatment plant flows. The released treated water would be significantly cleaner than the current quality of the New River in that section of the river. Therefore, the treated water would provide additional benefits to the riparian ecosystem and to public health. Impacts relative to water quality standards or water discharge requirements are considered less than significant.

| | | | | |
|---|---|---|---|---|
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The project does not propose to use groundwater resources or to otherwise affect any groundwater resources that are used for water supply. In addition, the proposed project will not significantly increase the impermeable surface area on the project site, so it would not interfere with the existing level of groundwater recharge. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table. No impact is anticipated to occur.

| | | | | |
|---|---|---|---|---|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| d) Substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | ☐ | ☐ | ☒ | ☐ |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.**

Short-Term Impacts

The project measures approximately 8,100 linear feet in length to accommodate the bypass encasement alignment and the pump-back line alignment. The project would result in a graded area totaling approximately 14 acres in order to construct the alignments. Erosion and sedimentation would be controlled through the implementation of best management practices pursuant to the NPDES Construction General Permit. Therefore, construction impacts are considered less than significant.

Long-Term Impacts

The proposed project would intercept flows of the New River just north of the international boundary via an underground pipe that would bypass the populated area of southern Calexico and discharge the water to the east of the All-American Canal. The river bypass encasement would be designed to capture an average flow of 160 cubic feet per second. Flows greater than 160 cfs would continue to be carried in the New River.

As part of the proposed project, the Calexico Wastewater Treatment Plant would reroute its treated water disposal site from a location near the plant to a location immediately downstream of the New River bypass encasement diversion structure to help counter the loss of water to the riparian habitat in the existing river alignment due to the diversion of the river. The rerouted treatment pipe, or New River pump-back system, would be an underground encased pipe that would outfall just south of 2nd Street at the diversion structure. Access to the NRPBS site would be via the existing WWTP paved access road. Asphalt cement paving is proposed for the entire site leading from the point of access and would surround the proposed NRPBS site. Such paving would allow the site to provide positive drainage away from the building.

The project proposes installation of an energy dissipation device at the downstream end of the improvements to ensure dry weather conditions do not result in adverse impacts associated with erosion. The preferred location of the energy dissipater is approximately 400 feet east of the All-American Canal In addition to the energy dissipation structure, riprap would be installed immediately downstream of the concrete structure. The inclusion of rip rap in addition to the concrete energy dissipater would decrease the potential for erosion given the anticipated discharge associated with the proposed upstream improvements. Such improvements are not anticipated to adversely affect the 100-year floodplain as currently documented by FEMA; refer also to the Hydraulics Report (Michael Baker International October 2018), available under separate cover.

Wet weather flow is less of a concern when considering erosion, as the tailwater condition is expected to serve as added protection against erosion. Sediment deposition is also a design consideration to ensure the downstream outlet does not fill in over time. By locating the upstream diversion structure and screen close to the proposed trash screen, minimal solids are anticipated within the pipe flow that might otherwise clog the downstream security cage or screen.

Since the outfall of the NRPBS would be significantly less than the current average flow of the New River, the river's drainage patterns would most likely be altered. However, the altered water flow is not anticipated to increase the risk of flooding, erosion, or siltation, as such effects usually result from an increase in water flows in a drainage system. The proposed energy dissipation devise would help regulate the outfall volume, which would reduce the potential for erosion and/or flooding at the downstream outfall location. Furthermore, the project does not include the development of impervious surfaces that would substantially increase the potential for erosion or flooding from storm water runoff, other than at the site for the NRPBS, which would be designed to facilitate adequate drainage. Therefore, impacts would be less than significant.

| | | | | | |
|---|---|---|---|---|---|
| f) | Otherwise substantially degrade water quality? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** See Responses a) and c, d, e), above.

| | | | | | |
|---|---|---|---|---|---|
| g) | Place housing within a 100-year flood hazard area as mapped on a Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | ☐ | ☐ | ☐ | ☒ |
| h) | Place within a 100-year flood hazard area structures which would impede or redirect the flood flows? | ☐ | ☐ | ☐ | ☒ |

**No Impact.**

The project does not involve the development or placement of any housing. Therefore, the project would not place housing within a 100-year flood hazard area. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The project is not located near a levee or dam and does not include the construction of structures that would be occupied. The closest dam is the Imperial Diversion Dam, approximately 62 miles east of the site in the lower Colorado River Valley straddling the border between Imperial County and Yuma County, Arizona. The dam conveys Colorado River waters into the Imperial Reservoir and canal system. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of a failed levee or dam. No impact would occur.

| | | | | |
|---|---|---|---|---|
| j) Inundation by seiche, tsunami, or mudflow? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** The project site is not located near the coast of an ocean that could produce a tsunami, a body of water that could produce a seiche, or steep slopes that could create mudflow. The project site is approximately 97 miles east of the Pacific Ocean and approximately 32 miles southeast of the Salton Sea. Therefore, impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.10. LAND USE AND PLANNING

Would the project:

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

**No Impact**. The project would be constructed on land within or adjacent to the New River channel, which is largely disturbed and/or previously developed with related facilities (e.g., Calexico Wastewater Treatment Plant). To the north are low-density residential uses; to the east, undeveloped lands; to the south and west, Calexico International Airport; and to the west, industrial uses. Project improvements would occur on lands within or adjacent to the New River channel and on lands currently under the ownership of the City of Calexico.

The construction of new roadways or pathways to serve the project site is not required, with exception of a 20-foot wide asphalt roadway that would allow access to the trash screen/diversion structure and the bypass encasement infrastructure for maintenance purposes. Because much of the proposed improvements would be undergrounded, construction of substantial walls or other obstructions that may have the potential to restrict or redirect vehicular or pedestrian/bicycle circulation or access in the area would not occur. Additionally, the NRPBS would be housed in the existing Calexico Wastewater Treatment Plant and would therefore not affect undeveloped lands. The project would not result in construction that would physically divide an established community. No impact would occur.

| | | | | | |
|---|---|---|---|---|---|
| b) | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The Calexico General Plan Land Use Element designates lands affected by the proposed improvements as Open Space (OS); current zoning is also Open Space (OS). No changes to the existing land use designation or zoning are required or proposed to allow project implementation. Additionally, the project would not conflict with the intended use of the property or with surrounding land uses. The proposed improvements would allow for improved water quality in the New River, and potentially, enhanced biological habitat and/or recreational lands for public use as indicated in the Conservation and Open Space Element of the General Plan.

Further, the subject site is not located within the boundaries of a specific plan or affected by an overlay zone intended for environmental protection. Additionally, the site is not located in the coastal zone. Therefore, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project.

The proposed improvements are allowed on the subject lands under the existing land use designation and zoning and are considered compatible with surrounding land uses in the area (industrial uses, wastewater treatment plant, etc.). Accordingly, impacts would be less than significant.

| | | | | | |
|---|---|---|---|---|---|
| c) | Conflict with any applicable habitat conservation plan or natural community conservation plan? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The project site is in an urbanized area where surrounding lands are largely built out. The site does not lie within the boundaries of any habitat conservation plan or natural community conservation plan, as there are no such plans in place that affect lands in Imperial County. The site is not located within any designated habitat preserves or zones (e.g., softline or hardline preserves or coastal zone).

The Calexico General Plan Conservation and Open Space Element recognizes plans and programs enacted through federal, state, and local actions and administered by agencies and special districts, as well as lists goals and policies that address biological and ecological resources both locally and regionally. As stated in

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

Response e) in Section 2.2.4, Biological Resources, pertaining to project conflict with local policies or ordinances protecting biological resources, the city does not have any local policies or ordinances to protect biological resources of local concern.

As such, the proposed infrastructure improvements would not conflict with an applicable habitat conservation plan or natural community conservation plan. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.11. 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? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. Industrial minerals such as sand, gravel, lime, gypsum, clay, stone, limestone, mica, tuff, salt, potash, calcium chloride, and kyanite have been historically mined in Imperial County, with some active mining activities still occurring (County of Imperial 2016). Sand and gravel resources are present in the region surrounding Calexico. The Calexico General Plan does not identify the presence of any mineral resources on lands affected by the proposed project. No active oil wells or natural resource extraction activities are located in the area where the proposed improvements would occur. Additionally, the project site is currently designated as Open Space (OS) in the City's General Plan and Zoning Code and is therefore not planned or zoned for mineral extraction.

Thus, the project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents of the state. No impact would occur.

| | | | | |
|---|---|---|---|---|
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. Refer to Response a), above. No lands affected by the project are delineated as a locally important mineral resource recovery site. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.12. NOISE

Would the project result in:

| | | | | |
|---|---|---|---|---|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.**

Noise-Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors are residential uses approximately 700 feet north of the project site along Wozencraft Street and Calexico Street.

Short-Term Construction Noise Impacts

The proposed project would be a source of temporary or periodic increases in ambient noise levels that could be audible to nearby sensitive receptors during project construction. The mix of equipment operating on-site would vary depending on the activity being conducted, and noise levels would vary based on the amount of equipment in operation and the location of the activity. Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction activities are anticipated to occur with an initial construction phase over approximately 12 months. Groundborne noise and other types of construction-related noise impacts typically occur during the site preparation and grading construction phases. The project's construction phases have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment that could be used for the project are presented in Table 2.2.12-1, Maximum Noise Levels Generated by Construction Equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents (lasting less than one minute) such as dropping large pieces of equipment or the hydraulic movement of machinery lifts.

Typical heavy construction equipment would include bore/drill rigs, cranes, excavators, pavers, paving equipment, rollers, rough terrain forklifts, rubber-tired dozers, rubber-tired loaders, scrapers, signal boards, and tractors/loaders/backhoes. As required in Chapter 8.46, Noise Ordinance, of the Calexico Municipal Code, construction activities would be limited to between the hours of 8:00 a.m. and 5:00 p.m. daily, and the use of mufflers or sound dissipative devices for internal combustion engines is required to reduce noise levels associated with construction activities. Because of the effects of noise attenuation, the distance from the noise source to a receptor is a primary consideration in determining the noise level experienced at the receptor.

**TABLE 2.2.12-1**
**MAXIMUM NOISE LEVELS GENERATED BY CONSTRUCTION EQUIPMENT**

| Type of Equipment | Acoustical Use Factor[1] | $L_{max}$ at 100 Feet (dBA) | $L_{max}$ at 700 Feet (dBA) |
|---|---|---|---|
| Concrete Saw | 20 | 84 | 67 |
| Concrete Mixer Truck | 40 | 73 | 56 |
| Backhoe | 40 | 72 | 55 |
| Dozer | 40 | 76 | 59 |
| Excavator | 40 | 75 | 58 |
| Forklift | 40 | 72 | 55 |
| Paver | 50 | 71 | 54 |
| Roller | 20 | 74 | 57 |
| Tractor | 40 | 78 | 61 |
| Water Truck | 40 | 74 | 57 |
| Grader | 40 | 79 | 62 |
| General Industrial Equipment | 50 | 79 | 62 |

Note: Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.
Source: Federal Highway Administration 2006

As noted above, the nearest sensitive receptors are residential uses approximately 700 feet north of the project site along Wozencraft Street and Calexico Street. Because different construction stages involve different pieces of equipment and may involve only localized portions of a site, each construction stage can result in different noise levels being generated, depending on the distance to sensitive receptors. As shown in Table 2.2.12-1, at a distance of 700 feet the highest construction noise level would be approximately 67 dBA; refer also to Appendix G, Noise Technical Data. Because the project would comply with the city's allowable hours of operation for construction and the city does not have construction noise thresholds, a less than significant impact would occur in this regard.

Operational Noise Impacts

Operation of the proposed project would generate minimal noise from the pump-back system that will take treated wastewater from the Calexico Wastewater Treatment Plant. Implementation of the proposed project would not cause a significant increase in noise relative to existing conditions. Existing noise sources in the area include traffic noise along Cesar Chavez Boulevard and local roadways, aircraft noise at Calexico International Airport, and the pump systems at the existing wastewater treatment plant. The closest sensitive receptors are residential uses 700 feet away. No long-term changes would occur to the types or frequency of noise when compared to existing conditions. As such, a less than significant impact would occur in this regard.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ☐ ☐ ☒ ☐

**Less Than Significant Impact.** Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at

moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inches per second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration produced by construction equipment is listed in Table 2.2.12-2, Typical Vibration Levels for Construction Equipment.

**TABLE 2.2.12-2**
**TYPICAL VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT**

| Equipment | Approximate Peak Particle Velocity at 25 Feet (inches per second)[1] | Approximate Peak Particle Velocity at 100 Feet (inches per second)[1] |
|---|---|---|
| Pile Driver (sonic) | 0.734 | 0.092 |
| Hoe Ram | 0.089 | 0.011 |
| Caisson Drilling | 0.089 | 0.011 |
| Large Bulldozer | 0.089 | 0.011 |
| Loaded Trucks | 0.076 | 0.009 |
| Small Bulldozer | 0.003 | 0.001 |
| Jackhammer | 0.035 | 0.004 |

Notes:
1. FTA 2006, Table 12-2
2. Calculated using the following formula:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

Groundborne vibration decreases rapidly with distance. As indicated in Table 2.2.12-2, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.734 inches per second peak particle velocity (PPV) at 25 feet from the source of activity. The nearest structure to the project site is located at the Calexico International Airport, approximately 100 feet to the south of the project site. As noted in Table 2.2.12-2, vibration from construction activities experienced at the nearest sensitive receptors would range from 0.001 to 0.092 inches per second PPV, which is below the significance threshold of 0.20 inches per second PPV. Furthermore, operational vibration impacts are not anticipated because the project consists of a water pipeline with a pump-back system. Thus, a less than significant impact would occur in this regard.

| | | | | |
|---|---|---|---|---|
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Project operations would involve infrequent vehicle trips to the project site, and the pump-back system would include two self-priming centrifugal pumps. These pumps would be within an enclosure and the nearest sensitive receptor would be approximately 1,300 feet from the enclosure. Noise levels from the centrifugal pumps would be minimal at this distance. Additionally, according to the Calexico General Plan Noise Element, the project site and the surrounding uses are located within Calexico International Airport's 55-60 dBA CNEL noise contour zone. Thus, the project would not have a substantial permanent increase on ambient noise levels in the vicinity. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Please refer to Response a), above.

| | | | | |
|---|---|---|---|---|
| e) For a project located within an airport land use plan or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Calexico International Airport is located just south and west of the proposed project improvements. The site is affected by Calexico International Airport Compatibility Zones A, B1, and C. In addition, no residential uses are proposed for the project and no permanent work sites would be located on the project site. During construction, workers may be exposed to airport noise. However, it is anticipated that noise from the airport would be sporadic and that exposure would be limited and temporary. A less than significant impact would occur in this regard.

| | | | | |
|---|---|---|---|---|
| f) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact** The nearest private airstrip to the project site is the Johnson Brothers airstrip, located approximately 1.5 miles to the east of the project site. At this distance, the airstrip would not expose people in the project area to excessive noise levels. A less than significant impact is expected to occur with regard to exposure of people residing or working in the project area to excessive noise levels from a private airstrip.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.13. POPULATION AND HOUSING

Would the project:

| | | | | |
|---|---|---|---|---|
| a) Induce substantial 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)? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The project does not propose any new development (e.g., multi-family housing, heavy industrial use) that would increase the intensity in land use at the site. Rather, the proposed project includes a trash screen at the international boundary with Mexico; encasement of the river from a point downstream of the international boundary to a point downstream from where the river crosses the west branch of the All-American Canal; and a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international boundary with Mexico. No new housing is proposed, and no extension of roadways or other public infrastructure that may indirectly induce growth is required or proposed in support of the project. Construction activities would lead to a temporary increase in the daytime population, but workers would be limited in number and would not generate a large and steady demand for local goods or services that could spur business development in the surrounding area. No impact related to direct or indirect population growth would occur with implementation of the proposed project.

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

**No Impact.** The proposed project consists of a trash screen, bypass encasement infrastructure, and pump-back system to the existing wastewater treatment plant. No components of the project would result in the displacement of housing necessitating the construction of replacement housing elsewhere. Therefore, no impact would occur.

| | | | | |
|---|---|---|---|---|
| c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** See Response b), above. No components of the project would result in the displacement of people. Therefore, no impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.14. 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The project involves designing and completing infrastructure components to address the public health threat posed by the New River to people in the Calexico area. The project includes a trash screen at the international boundary with Mexico; encasement of the river from a point downstream of the international boundary to a point downstream from where the river crosses the west branch of the All-American Canal; and a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international boundary with Mexico. No new residential housing or other land uses are proposed that would potentially generate substantial area population growth which would increase local demand for fire protection services.

Fire prevention, fire protection, and emergency medical services in the project area are provided by the Calexico Fire Department. The project site is currently served from Fire Station #2 at 900 W. Grant Street, which serves the west side of Calexico (Calexico 2018a).

The project has been designed to city design standards for emergency access and on-site circulation. The proposed design would be subject to review by the local fire and police departments, as well as by other regulating agencies (e.g., US Department of Homeland Security) to ensure proper security measures are in place and that adequate emergency access and circulation are provided.

Due to the nature of the facilities proposed (infrastructure improvements), the proposed project is not anticipated to substantially increase the need for fire protection services or to increase the risk of fire that would require new or expanded facilities or staff to serve the proposed use. Existing services and facilities are considered adequate to serve the project as proposed without resulting in substantial adverse physical impacts. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| 2) Police protection? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. Refer to Response a.1), above. No new housing or other land uses are proposed that would generate substantial new population growth in the area which would increase demand for police protection services. Additionally, the majority of improvements would occur underground or within existing facilities (wastewater treatment plant) and would therefore not be accessible to vandals or trespassers.

The project site is currently served by the Calexico Police Department, which is headquartered at 420 E. 5th Street, approximately 0.4 miles to the northeast of the site. Various substations throughout the city provide as-needed law enforcement services.

Due to the nature of the facilities proposed (infrastructure improvements), the proposed project is not anticipated to substantially increase the need for police protection services or adversely affect the Police Department's ability to provide such services using existing equipment and personnel. Only minor, if any, incidents potentially resulting from trespass or vandalism are anticipated subsequent to project implementation, and such incidents would likely occur on an infrequent, limited basis. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 3) Schools? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. Educational services in the project area are provided by the Calexico Unified School District, with Mains Elementary School serving grades K–6 (655 W. Sheridan Avenue, approximately 0.8 miles to the north of the project site); William Moreno Junior High School serving grades 7–9 (1202 Kloke Road, approximately 0.7 miles to the north of the project site); and Aurora High School serving grades 10–12 (641 Rockwood Avenue, approximately 0.5 miles to the northeast of the project site) in the project site vicinity (Calexico Unified School District 2018).

The project does not propose any new housing that would generate substantial new local population or increase demand for school services, and therefore, no effect on such services would result with project implementation. Due to the nature of the project as an infrastructure improvement project being undertaken by the City of Calexico, in collaboration with other local, state, and federal agencies, the payment of applicable school fees to ensure the provision of adequate school services and meet the current and future educational demands of city residents is not required. No impact on school services would occur.

| | | | | |
|---|---|---|---|---|
| 4) Parks? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. The project would not directly or indirectly result in area population or housing growth. Due to the nature of the proposed improvements, the project would not affect any existing park facilities nor increase the demand for additional recreational facilities in the city or the surrounding area. No impact to park services would occur as a result of the project.

| | | | | |
|---|---|---|---|---|
| 5) Other public facilities? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. Due to the nature of the proposed land use and as previously indicated, the proposed project would not increase the local population. Therefore, the project would create additional demand for other public services, such as libraries. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.15. 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? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** The project would not directly or indirectly result in population and housing growth. Therefore, it would not impact existing neighborhood and regional parks or other recreational facilities as a result of substantial physical deterioration of the facilities. Furthermore, the project does not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.16. TRANSPORTATION/TRAFFIC

Would the project:

| | | | | |
|---|---|---|---|---|
| a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. Project construction activities would temporarily generate additional traffic on the existing area roadway network. Construction workers traveling to the site and delivery trips associated with construction equipment and materials would occur along local roadways. Construction materials would be stored on-site at construction staging areas, thereby reducing ongoing trips for the delivery of materials to the site during the construction phase and potential effects on the performance of local roadways (e.g., temporary traffic congestion due to slow-moving construction vehicles).

As an infrastructure improvement project, the project is not anticipated to generate substantial numbers of new vehicle trips that would have the potential to decrease the level of service (LOS) on local roadways or conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. It is anticipated that several new employees would be required for operation of the facilities, as well as for long-term maintenance and repair on a periodic basis. As such, the project would not generate routine vehicle trips that would adversely affect circulation on local roadways or interfere with existing circulation patterns. The project would be constructed within or adjacent to the New River channel and would not result in a change in access to or operation of alternative means of area transit, including pedestrian or bicycle paths or mass transit. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| b) Conflict with an applicable congestion management program, including but not limited to level of service standard and travel demand measures, or other standards established by the county congestion/ management agency for designated roads or highways? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. See Response a), above. The project is not anticipated to conflict with an applicable congestion management program. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | ☐ | ☐ | ☐ | ☒ |

**No Impact.** Calexico International Airport is located just south and west of the project site; refer to Figure 2A, Overview – Proposed Improvements. The nearest private airstrip to the project site is the Johnson Brothers airstrip, approximately 1.5 miles to the east. The proposed improvements would occur within or adjacent to the New River channel. The majority of the facilities would either be undergrounded or would be constructed within existing facilities (wastewater treatment plant). No structures of substantial height are proposed that would have the potential to interfere with air traffic patterns at nearby airports. The proposed project would not result in a change in air traffic patterns. Therefore, the project would have no impact.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. See Response a), above. The construction of new off-site public or private roadways to provide access to the site is not required or proposed with the project. Only minor improvements are required for the provision of access to the proposed facilities for maintenance purposes. The project would not substantially increase hazards due to a design feature or incompatible use. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| e) Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. Construction of the project would temporarily generate additional traffic on the existing area roadway network. These vehicle trips would include construction workers traveling to the site as well as delivery trips associated with construction equipment and materials. Delivery of construction materials to the site would likely require oversize vehicles that may travel at slower speeds than existing traffic, thereby causing minor delays on local roadways on a temporary, intermittent basis.

Lane closures are not anticipated, and no off-site roadway improvements are required or proposed that would have the potential to interrupt area circulation or redirect traffic. As such, project construction is not anticipated to substantially disrupt area traffic or cause a significant increase in daily traffic on area roadways or at local intersections.

All proposed access routes would be designed consistent with city design standards for emergency access and would adequately accommodate the on-site maneuvering of emergency vehicles. Additionally, the project is subject to the city's review process for determination of project conformance with city design standards for the provision of emergency access and circulation. The project is therefore not anticipated to interfere with emergency access. Impacts would be less than significant.

| | | | | |
|---|---|---|---|---|
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | ☐ | ☐ | ☐ | ☒ |

**No Impact**. No off-site improvements are proposed that are expected to interfere with the movement of pedestrians or bicyclists or that would prohibit access to public transit or pedestrian or bicycle facilities. The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. No impact would occur.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.17. 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: | | | | |
| 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** In 2015, the California Public Resources Code was amended to enact Assembly Bill 52 (AB 52) to ensure that local and tribal governments, public agencies, and project proponents would have information early in the project planning process to identify potential impacts to tribal cultural resources. California Public Resources Code Section 21084.2 states that a "project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Tribal cultural resources are considered to be any of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either (a) included or determined to be eligible for inclusion in the California Register of Historical Resources, or (b) included in a local register of historical resources.
2. A resource determined by the lead agency (in its discretion and supported by substantial evidence) to be significant. This includes resources considered significant to a California Native American tribe (e.g., cultural landscapes, unique and non-unique archaeological resources, and historic resources).
3. Embodies the distinctive characteristics of a type, period, or region or method of construction, or represents the work of an important creative individual or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

The project site is presently undeveloped and does not support any listed or eligible resources as defined by Public Resources Code Section 5020.1(k). The project would therefore not cause a substantial adverse effect to any such resources. Impacts would be less than significant. Refer also to Responses a) and b) in subsection 2.2.5, Cultural Resources.

| | | | | |
|---|---|---|---|---|
| 2) 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. | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant Impact with Mitigation Incorporated.** A Cultural Resources Study was prepared for the proposed project by Michael Baker International (2018a); refer to Appendix D. The study consists of background and archival research, a records search at the South Coastal Information Center, a Native American Heritage Commission Sacred Lands File search, and an archaeological field survey.

During the archaeological evaluation, no evidence of tribal cultural resources or human remains, including those interred outside of formal cemeteries, was identified on-site during the records search, literature review, or field

survey. There is no indication that the project site was used by Native Americans for religious, ritual, or other special activities. No traditional cultural properties that currently serve religious or other community practices are known to exist in the immediate project vicinity.

As previously stated in Responses a) and b) in Section 2.2.5, Cultural Resources, cultural resources identified by the SCIC records search and/or by the archaeological pedestrian field survey completed for the project include the All-American Canal located adjacent to the CEQA project area and USACOE/SWRCB APE, and two historic-period debris scatters (MBI-1 and MBI-2) located adjacent to the CEQA project area but outside of the USACOE/SWRCB APE. Neither the canal not the debris scatters would be affected by project-related ground disturbance activities. No other resources determined to be of significance were identified.

Michael Baker International submitted a Sacred Lands File and Native American Contacts List Request to the Native American Heritage Commission (NAHC) on April 5, 2018. The NAHC responded on April 17, 2018, stating that the Sacred Lands File search had negative results. The NAHC also provided a list of tribes culturally affiliated with the APE.

The City of Calexico, acting as the lead agency, will consult with the NAHC to identify and notify the Native American tribes that may be impacted by the proposed project during the public comment period, in compliance with Public Resources Code Section 5024.1. The notified Native American tribes have the opportunity to provide information regarding tribal cultural resources (as defined by Public Resources Code Section 21074) so that this information can be incorporated in the planning phase of the project. Information and input from the Native American tribes must be submitted to the lead agency within 30 days of the date of the letter, in accordance with AB 52. As of the commencement of the 30-day public review period for the New River Improvement Project Mitigated Negative Declaration, the AB 52 consultation process remains ongoing.

As discussed in subsection 2.2.5, Cultural Resources, although the proposed project would not cause a substantial adverse change in the significance of a known archaeological resource, there is a potential for project-related construction to impact unknown or previously unrecorded archaeological resources. For this reason, mitigation measures CUL-1 and CUL-3 are required in the event that cultural resources or human remains respectively, are inadvertently encountered during construction activities. Implementation of mitigation measures CUL-1 and CUL-3 would reduce potential impacts to a less than significant level. With implementation of mitigation measures CUL-1 and CUL-3, project impacts on tribal cultural resources would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

## 2.2.18. UTILITIES AND SERVICE SYSTEMS

Would the project:

| | | | | | |
|---|---|---|---|---|---|
| a) | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | ☐ | ☐ | ☒ | ☐ |
| b) | Require or result in the construction of new water or water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The project does not propose any new development (e.g., multi-family housing, heavy industrial use, commercial use) that would substantially increase the land use intensity at the site and increase demands for wastewater treatment services provided by the city. Rather, the proposed project includes a trash screen at the international boundary with Mexico; encasement of the river from a point downstream of the international boundary to a point downstream from where the river crosses the west branch of the All-American Canal; and a pump-back system to take treated wastewater from the Calexico Wastewater Treatment Plant and discharge it into the New River channel at a point near and downstream from the international boundary with Mexico.

Project construction activities would lead to a temporary increase in the daytime population in the area, but workers would be limited in number and would not generate a large or steady demand for wastewater treatment services in the surrounding area. Such effects would be temporary in nature and would cease upon completion of project construction.

The project would result in construction of the New River pump-back system (NRPBS), which would be housed within the existing Calexico Wastewater Treatment Plant; refer to Figure 2A, Overview – Proposed Improvements. The NRPBS would be capable of pumping up to 5.0 million gallons per day of secondary treated and disinfected wastewater. The system would convey, on average, approximately 2.25 mgd (3.47 cfs) of water back to the river, near (downstream of) the New River bypass encasement diversion structure. The average flow is based upon current wastewater treatment plant flows. Therefore, the project would increase wastewater treatment operations at the Calexico Wastewater Treatment Plant to address the increase in flows generated by diversion of the New River via the proposed infrastructure improvements. However, it is anticipated that the increase in flows can be accommodated at the existing wastewater treatment plant without requiring the construction of new facilities or the expansion of existing facilities. All such project operations and wastewater treatment operations as proposed would occur to the satisfaction of the Colorado River RWQCB.

Additionally, due to the nature of the proposed improvements, the project would not substantially increase demand for water service as provided by the City of Calexico. The city has prepared and implements its Urban Water Management Plan (UWMP), which considered the projected 2040 population of Calexico. The UWMP indicates that the city will be capable of providing water service to the anticipated future population (Calexico 2015b). Refer to Response d), below, for additional discussion. Furthermore, because the project would be consistent with the development intensity identified for the site according to the land use designation in the City of Calexico General Plan, it would not exceed the water or wastewater treatment requirements of the service provider.

The project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board or require or result in the construction of new water or water treatment facilities or the expansion of existing facilities. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The project design includes minor improvements to accommodate storm water flows through the site; refer to the improvement plans prepared for the proposed project (available under separate cover). All storm water rates and volumes would remain the same as those occurring under existing conditions subsequent to installation of the proposed improvements. Any grading and drainage improvement plans prepared for the project would be subject to city design requirements to ensure conformance with required local, state, and federal standards for drainage and storm water quality. As designed, the project would not create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or contribute substantial additional sources of polluted runoff. The city's existing storm water infrastructure is adequate to accommodate storm water runoff from the site.

Further, the project has been designed to avoid indirect water quality impacts with the implementation of a SWPPP, including proposed storm water control best management practices. Refer to subsection 2.2.9, Hydrology and Water Quality, for additional discussion.

Due to the nature of the proposed improvements, the project is not anticipated to require or result in the construction of new storm water drainage facilities or expansion of existing facilities. Impacts would be less than significant.

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| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. The City of Calexico provides potable water service to its residential, commercial, and industrial customers within the city limits. The water system treats surface water imported 80 miles from the Colorado River by the Imperial Irrigation District (IID) via the All-American Canal. Raw water is pumped through a 42-inch pipeline to the city's 25-million-gallon reservoir. The water is then pumped from the raw water reservoir through a 30-inch pipeline to the Calexico Water Treatment Plant at 545 Pierce Avenue, a distance of approximately 1 mile from the diversion point. The plant is capable of treating 14 mgd of surface water. The total storage capacity for finished water is 16 mgd. Total storage capacity, including the raw water reservoir, is 41 mgd. The current flow rate of the finished water pump station is 18,000 gallons per minute (gpm) or 26 mgd (Calexico 2018b).

The City of Calexico has prepared and implements its Urban Water Management Plan, which considered the city's projected 2040 population. The plan indicates that the city will be capable of serving the anticipated future population (Calexico 2015b).

The proposed project includes installation of a trash screen that would remove a substantial amount of solid waste from within the river channel to help improve overall water quality. As stated previously, the project would include construction of the New River pump-back system, capable of pumping up to 5.0 mgd of secondary treated and disinfected wastewater. The NRPBS would be located within the Calexico Wastewater Treatment Plant and would convey, on average, approximately 2.25 mgd (3.47 cfs) back to the New River, near (downstream of) the New River bypass encasement diversion structure. The average flow is based upon current wastewater treatment plant flows. Water demands created by the proposed project for the wastewater treatment process are not anticipated to be substantial or to result in adverse effects on existing water supplies. The project does not propose any new residential, commercial, or industrial uses that would substantially increase demand on water supplies above existing conditions.

Therefore, the project is not anticipated to adversely affect existing water supplies, nor would it require new or expanded entitlements for water service. Impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| e) 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? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact**. See Response a), above.

| | | | | |
|---|---|---|---|---|
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | ☐ | ☐ | ☒ | ☐ |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** Project construction would generate limited amounts of solid waste (construction materials, debris, trash, etc.). All such waste would be collected and properly disposed of at an approved off-site location in accordance with local, state, and federal regulations pertaining to solid waste disposal, including the diversion of construction waste from local landfills, as applicable.

Operation of the project itself (trash screen, bypass encasement infrastructure, and pump-back system from the existing wastewater treatment plant) would not in and of itself generate substantial amounts of solid waste above existing conditions. Therefore, project operation would contribute only incrementally to any increased demand on the local landfill. However, the project would result in daily ongoing operation of an automated, self-cleaning trash screen for the New River. The trash screen would be located directly upstream from the New River bypass encasement diversion structure and would be capable of removing one ton of trash per day.

Under current conditions, the City of Calexico contracts with Allied Waste Systems for the collection and disposal of solid waste. Solid waste is deposited at the Imperial Landfill at 104 East Robinson Road in Imperial. The landfill is currently permitted to receive a maximum of 1,700 tons of solid waste per day. Maximum permitted capacity is 19,514,700 cubic yards. The landfill has an estimated remaining capacity of 15,485,200 cubic yards (CalRecycle 2018). Therefore, existing landfill capacity is anticipated to be adequate to accommodate the project's solid waste disposal demands over the long term.

Solid waste removed with operation of the trash screen and other project components would be disposed of in conformance with all applicable local, state, and federal regulations. With conformance to applicable federal, state, and local solid waste reduction and recycling measures, the project is not anticipated to result in a significant impact on solid waste disposal capacity. The project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs. Therefore, impacts would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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## SECTION 3
## 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 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, 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? | ☐ | ☒ | ☐ | ☐ |

**Less Than Significant with Mitigation Incorporated.** Project grading and construction activities during the typical breeding and nesting season for birds could result in potential indirect impacts on avian species in general (i.e., short-term construction-related noise levels may disrupt foraging, nesting, and reproductive activities). Project excavation activities could also directly impact previously established active nesting burrow(s) for the burrowing owl. Vegetation clearance and pipeline excavation, trenching, and construction activities could directly affect the adjacent reach of the New River, including jurisdictional resources (e.g., water quality degradation; disturbance of sensitive riparian scrub habitat from accidental encroachment by construction workers and/or equipment; channel disturbance if the project would result in erosive runoff velocities from rain events entering the river during and/or after construction). Project operations may also result in indirect impacts to jurisdictional resources, including wetland functions of riverine habitat, from the altered hydrological regime (diversion of water from the New River channel). Project construction activities may also result in indirect impact impacts on animals' potential movements along wildlife corridors along the adjacent reach of the New River. However, implementation of mitigation measures BIO-1 through BIO-7 would reduce these impacts to less than significant.

While it is unlikely that human remains would be disturbed during project implementation, should human remains be encountered during ground-disturbing activities, compliance with California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 would ensure that any human remains discovered on the project site would be properly managed. Mitigation measure CUL-3 would reduce any impacts to a less than significant level. Similarly, impacts to archaeological and paleontological resources would be minimized or avoided through the implementation of mitigation measures during grading, excavation, and ground-disturbing activities. Impacts would be less than significant with implementation of mitigation measures CUL-1 and CUL-2. The proposed project would not eliminate important examples of the major periods of California history or prehistory. Implementation of the above-referenced mitigation measures related to biological resources and cultural resources, and compliance with existing regulations on the disposition of human remains that may be found during excavation, would reduce impacts to less than significant.

| | | | | |
|---|---|---|---|---|
| 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.) | ☐ | ☐ | ☒ | ☐ |

**Less Than Significant Impact.** The project's potential direct and indirect impacts on the biological resources and cultural resources evaluated in this document would also be considered cumulatively considerable when combined with the anticipated regional loss of similar biological resources and cultural resources resulting from recent past, present, and probable near-term development throughout Imperial County. Because project impacts would be less than significant after mitigation, impacts associated with the proposed project are not expected to

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|

result in cumulatively considerable impacts when added to the impacts of other projects planned or proposed in the vicinity of the proposed project. Cumulative impacts would be less than significant.

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

**Less Than Significant Impact with Mitigation Incorporated.** The Initial Study found that project construction and/or operation may have the potential to generate significant adverse effects on human beings (e.g., air quality construction impacts [fugitive dust]). Potential environmental impacts on human beings, either directly or indirectly, would be less than significant after mitigation.

## SECTION 4
## PREPARERS

This section identifies those persons who prepared or contributed to preparation of this document.

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## TECHNICAL STUDIES

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Ryan Chiene, Air Quality/GHG and Noise Specialist

**BIOLOGICAL TECHNICAL REPORT** ..... Blackhawk Environmental

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**CULTURAL RESOURCE INVENTORY** ..... Michael Baker International

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**GEOTECHNICAL ENGINEERING REPORT** ..... Leighton Consultants, Inc.

Mike D. Jensen, PG, Senior Project Geologist

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**GEOSEARCH RADIUS REPORT** ..... GeoSearch

**JURISDICTIONAL DELINEATION** ..... Blackhawk Environmental

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## SECTION 5
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## SECTION 6
## FINDINGS

**This is to advise that the City of Calexico, acting as the lead agency, has conducted an Initial Study to determine if the project may have a significant effect on the environmental and is proposing this Mitigated Negative Declaration based on the following findings:**

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

☒ The Initial Study identifies potentially significant effects but:

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

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

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

**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 City of Calexico, Public Works Department, 608 Heber Avenue, Calexico, CA 92231.**

**NOTICE**

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

4/21/20 — Date of Determination

David Dale, PE, PLS; City Manager

*The results of the Mitigated Negative Declaration are hereby acknowledged and accepted, and all mitigation measures as outlined in the Mitigation Monitoring and Reporting Program shall be implemented accordingly.*

Signature — Date