

**INITIAL STUDY/MITIGATED NEGATIVE  
DECLARATION FOR IMPLEMENTATION OF  
THE WHITEWATER PRESERVE LEVEE  
REPLACEMENT PROJECT**

***Prepared for:***

**Coachella Valley Mountains Conservancy**  
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***Prepared by:***



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## TABLE OF CONTENTS

	<u>Page</u>
<b>SECTION 1.0 – INTRODUCTION .....</b>	<b>1</b>
<b>SECTION 2.0 – PROJECT DESCRIPTION .....</b>	<b>3</b>
2.1 PROJECT PURPOSE AND BACKGROUND .....	3
2.2 PROJECT DESIGN .....	3
2.3 PROJECT LOCATION AND SETTING .....	4
2.4 SCHEDULE .....	5
2.5 CONSTRUCTION PHASING .....	6
2.6 OPERATIONS .....	6
2.7 REQUIRED PERMITS AND APPROVALS.....	6
2.8 PRIOR CEQA REVIEW .....	6
<b>SECTION 3.0 – ENVIRONMENTAL DETERMINATION .....</b>	<b>10</b>
<b>SECTION 4.0 – ENVIRONMENTAL IMPACTS.....</b>	<b>11</b>
4.1 ORGANIZATION OF ENVIRONMENTAL ANALYSIS .....	11
4.2 TERMINOLOGY USED IN THIS ANALYSIS .....	11
4.3 EVALUATION OF ENVIRONMENTAL IMPACTS .....	11
4.3.1 Aesthetics.....	13
4.3.2 Agriculture & Forestry Resources .....	15
4.3.3 Air Quality .....	20
4.3.4 Biological Resources.....	27
4.3.5 Cultural Resources .....	53
4.3.6 Energy .....	55
4.3.7 Geology and Soils.....	56
4.3.8 Greenhouse Gas Emissions .....	63
4.3.9 Hazards and Hazardous Materials .....	65
4.3.10 Hydrology and Water Quality .....	68
4.3.11 Land Use Planning.....	73
4.3.12 Mineral Resources .....	74
4.3.13 Noise .....	75
4.3.14 Population and Housing.....	77
4.3.15 Public Services.....	78
4.3.16 Recreation .....	81
4.3.17 Transportation .....	82
4.3.18 Tribal Cultural Resources .....	86
4.3.19 Utilities and Service Systems .....	88
4.3.20 Wildfire .....	90
4.3.21 Mandatory Findings of Significance.....	92

**SECTION 5.0 – REFERENCES ..... 94**

**LIST OF FIGURES**

Figure 1: Regional Vicinity ..... 7

Figure 2: Aerial Photograph ..... 8

Figure 3: Levee Concept “A” ..... 9

**APPENDICES**

- A - AIR QUALITY/GREENHOUSE GAS ASSESSMENT
- B - BIOLOGICAL RESOURCES/HABITAT ASSESSMENT
- C - CULTURAL RESOURCES ASSESSMENT
- D - GEOTECHNICAL INVESTIGATION
- E - HYDROLOGY STUDY
- F - TRAFFIC MEMORANDUM

## **SECTION 1.0 – INTRODUCTION**

The California Environmental Quality Act (“CEQA”), codified in the Public Resources Code (PRC), Section 21000 et seq., and the CEQA Guidelines, Title 14, Section 15000 et seq. of the California Code of Regulations (CCR), was established to require public agencies to consider and disclose the environmental implications of their actions (projects). CEQA was enacted in 1970 by the California Legislature to disclose to decision makers and the public the significant environmental effects of a proposed project and identify possible ways to avoid or minimize significant environmental effects of a project by requiring implementation of mitigation measures or recommending feasible alternatives. CEQA applies to all California governmental agencies at all levels, including local, regional, and State, as well as boards, commissions, and special districts.

As provided by PRC Section 21067, the public agency with the principal responsibility for approving a project that may have a significant effect upon the environment is considered the Lead Agency. The Coachella Valley Mountains Conservancy (“CVMC”), as Lead Agency for the approval of the Applicant’s proposed project (“Project”), is responsible for preparing environmental documentation in accordance with CEQA as amended to determine if approval of the discretionary actions requested and subsequent implementation of the Proposed Project could have a significant impact on the environment. As defined by Section 10563 of the CEQA Guidelines, an Initial Study (“IS”) 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 (“ND”), Mitigated Negative Declaration (“MND”), or Notice of Exemption (“NOE”) would be appropriate for providing the necessary environmental documentation and clearance for the Proposed Project.

**County of Riverside  
Initial Study and Environmental Evaluation**

- 1. Project Title:** Whitewater Preserve Levee Replacement Project
- 2. Lead Agency Name and Address:** Coachella Valley Mountains Conservancy  
73-710 Fred Waring Drive, Ste. 112  
Palm Desert, CA 92260
- 3. Project Sponsor's Name and Address:** Coachella Valley Mountains Conservancy  
Jim R. Karpiak  
73-710 Fred Waring Drive, Ste. 112  
Palm Desert, CA 92260
- 4. Contact Person and Phone Number:** Coachella Valley Mountains Conservancy  
760-776-5026
- 5. Project Location:** 9160 Whitewater Canyon Road  
Whitewater, CA 92282
- 6. General Plan Designation:** Open Space (OS-C, OS-RUR, OS-W)
- 7. Zoning Designation:** Controlled Development Areas (W-2)
- 8. Description of Project:** The Project is for a replacement levee at the Whitewater Preserve for the purposes of continued flood protection for up to 100-year flood events. The parcel is designated Open Space and zoned Controlled Development Areas. See Section 2.0: Description of the Proposed Project for detail on all Project features.
- 9. Surrounding Land Uses:** Property located directly to the north and south of the site is the floor of Whitewater canyon; all other sides are surrounded by undeveloped mountains.
- 10. Other Public Agencies Whose Approval is Required:**  
  
State Water Resources Control Board
- 11. California Native American Consultation:** Tribal consultation has begun with Assembly Bill (AB) 52 notification letters sent to the following Native American tribes: Agua Caliente Band of Cahuilla Indians, La Posta Band of Mission Indians, Torres Martinez Desert Cahuilla Indians.

## **SECTION 2.0 – PROJECT DESCRIPTION**

### **2.1 PROJECT PURPOSE AND BACKGROUND**

The Wildlands Conservancy's Whitewater Preserve is located along the banks of the Whitewater River north of the I-10 Freeway crossing in the County of Riverside. The existing facilities, campgrounds, and sensitive habitat are currently protected from damaging flows in the river by an older earthen levee system. The levee was originally constructed by the Whitewater Trout Company which previously owned the property. This existing system is currently experiencing erosion and bank failures and it is anticipated that the existing system would not provide adequate flood protection during a 100-year (one-percent annual chance) storm event.

The Whitewater Preserve has long been protected from severe flooding associated with the Whitewater River by temporary levee structures that have existed for decades along the eastern boundary of the river. The current condition of the temporary levee is a slowly eroding barrier that needs to be restored if the long-standing protection of the preserve is to be maintained. This project would implement a design and alignment of a reinforced levee to be constructed on the eastern boundary of the river with the purpose of protecting sensitive habitat and the Whitewater Preserve Center.

The Wildlands Conservancy (TWC) is the largest nonprofit nature preserve system in California, currently with seventeen (17) preserves, it is dedicated to preserving the beauty and biodiversity of the earth and providing programs so that children may know the wonder and joy of nature.

In October 2019, TWC received a Proposition 1 Grant from the Coachella Valley Mountains Conservancy for the *Permitting Feasibility and Planning for Whitewater River Flood Improvements Project* to undertake the design, environmental review and permitting work for a replacement flood control structure to protect the Whitewater Preserve's visitor facilities and the current configuration of the wetlands habitat.

The goal of this project is to evaluate flood protection alternatives and provide the basis of design for the recommended facility improvements needed to provide up to a 500-year level of protection for The Preserve visitor facilities and critical habitats. The project shall be developed in coordination with the TWC and The Whitewater Preserve to establish the appropriate levels of flood protection and resiliency in accordance with intended goals for the project.

### **2.2 PROJECT DESIGN**

#### *Levee Design*

The top of the proposed levee has a finished surface elevation that measures about 3.5 to 5-feet above the water surface elevations identified in the river hydraulic models prepared for the project. A cross section of the proposed levee can be seen on the "Levee Concept A" exhibit. The levee will have a 16-foot wide road at the top for access and maintenance purposes. The levee will be constructed of soil cement with a width of 8-feet, and the river side of the levee will be faced with large rock material salvaged from the levee construction operations. The soil cement lining of the riverside face of the levee protects the levee from erosion during larger storm events, while the large rock facing minimizes the aesthetic impacts of the structure. The largest velocity in the river hydraulic models measured around 17-feet per second (fps) along the proposed extent of the levee. Velocities along the banks of rivers typically do not measure as high as they do in the main channel of the river, where the 17-fps value in the provided results comes from.

### *Hydraulic Analysis*

The United States Army Corps of Engineers (USACE) HEC-RAS (River Analysis System) computer model was used for the hydraulic analysis of the river. The Whitewater River model was developed and run for the reach of the river pertinent to the Whitewater Preserve area. Results of the hydraulic modeling were provided to Q3 Consulting for use in the preliminary design of the levee system. An existing condition model and four levee alignment models were analyzed. In addition, three flowrates (100-, 200-, and 500-year storm events) for the river were run through each of the models. The most extreme event storm event analyzed a flowrate in the river of 45,000 cubic feet per second (cfs). The other flowrate analyzed in the river measured 31,400 and 37,000cfs. Water surface elevations from the largest storm event were used to determine the height of the proposed levee. In all levee alignment models, the water surface elevations were similar in height. A summary of water surface elevations can be found in the appendices to this Initial Study/Mitigated Negative Declaration (IS/MND).

The alignment of the proposed levee exhibited in “Levee Concept A”, attached, was identified as Alternative No. 4, which is shorter version of Alternative No. 3. Protection of the Preserve area as well as avoidance of the sensitive species area around the preserve was the first priority in establishing an alignment. Other factors that contributed with the proposed alignment shown were utilization of the existing topography as an advantage against erosion and access points to the top of the levee that would limit impacts on the existing plant and animal species in the area.

Limits of the proposed levee are preliminary and will be refined during final design. The levee is expected to protect the Whitewater Preserve and the sensitive habitat in the area from flooding, erosion, and sedimentation during large storm events. The design of the levee will be an improvement upon the existing temporary levees that have been constructed in the area. Proper design and construction of the levee will prevent it from following the course of the previous levees, which have slowly been eroding with each storm event that passes through the Whitewater River. Improvement of the HEC-RAS hydraulic model, integration of design level topography, and feedback from the Conservancy will all be key factors in moving the project from a conceptual level to final engineering design and construction.

## **2.3 PROJECT LOCATION AND SETTING**

The project site is located north of Interstate 10 and west of State Route 62 in Whitewater, a designated place in Riverside County, California. The project site is depicted on the White Water quadrangle of the United States Geological Survey (USGS) 7.5-minute topographic map series in Sections 15 and 22 of Township 2 south, Range 3 east. Specifically, the project site is located on the Whitewater River, northwest of Palm Springs.

On-site surface elevation ranges from approximately 1,793 to 2,260 feet above mean sea level and generally slopes from north to south. The project site is located at the bottom of the Whitewater Canyon within the Whitewater River. The slopes of the canyon above the Whitewater River are steep vertical walls while, the bottom of the canyon is relatively flat, and slopes from north to south. Generally, the Whitewater River, within the project site, is composed of cobble and boulders with patches of loose sand and gravel. The NRCS USDA Web Soil Survey has not mapped the soils within the boundaries of the project site. Instead, data from the U.S. General Soil Map was acquired for the project site. Per the U.S. General

Soil Map data, the project site is underlain by the following soil units: Urban Land – Tujunga – Soboba – Hanford and Tecopa – Rock Outcrop – Lithic Torriorthents.

The Preserve visitor facilities, and ranger station are located adjacent to the eastern bank of the Whitewater River. The river is a dynamic system with a wide floodplain, high flow rates in response to storm events, and a meandering flow path. The Preserve facilities and previous fish hatchery have historically been protected from flooding by a series of levees along the riverbank. The levees have historically been constructed by pushing dirt and river rocks into a raised bank long the river's edge. In some cases, the rock has been grouted with concrete to provide additional protection. During the property's use as a trout hatchery, when the levee was eroded or was damaged by large storm events, it was been repaired in the same fashion as it was initially constructed. An engineered levee system designed to handle the dynamic conditions of the river has not been previously developed.

The Whitewater River adjacent to the Preserve has a watershed area of almost 58 square miles. The large watershed, steep terrain, and rocky conditions can rapidly change the dynamics of the river in response to storm events. The tranquil low flow conditions can quickly change into a raging river with destructive force. These conditions have resulted in significant damage to the current levee system. Much of the previous levee system has been eroded since its last repairs by the former hatchery operators and the Preserve facilities and habitats are in danger of being damaged or destroyed as a result of a large storm event. Remnants of the existing levee system and erosion of the bank protection along the Whitewater River are shown in Figure 2-1. The existing levee and bank protection are in need of being reconstructed and upgraded to an engineered system designed to handle the river conditions.

The recent storm events have resulted in erosion of the existing levee system and significant damage to the Whitewater Canyon Road including the low water crossing which was washed out in the February 2019 storm event. Riverside County completed reconstructed the low water crossing in late 2019. The crossing is significant in that it provides the only access to the Preserve visitor facilities and it acts as a grade control structure along the Whitewater River which helps maintain the vertical profile of the river along the project reach.

Land uses in the vicinity of the project site mostly consists of vacant, undeveloped land consisting of natural habitats associated with Whitewater Canyon. The Whitewater River traverses the central portion of the project site from north to south. The unincorporated community of Bonnie Bell is located south of the Whitewater Preserve, which is approximately 9.5 miles northwest of Palm Springs. Areas to the east and west consist of vacant, undeveloped land within the San Bernardino Mountains.

## **2.4 SCHEDULE**

Prior to commencement of construction, an experienced and qualified general contractor will submit a construction schedule which will be reviewed and approved by The Wildlands Conservancy or its designated representative. The schedule will include details of the construction phasing and incorporate any restrictions on work during certain periods of time if required.



## **2.5 CONSTRUCTION PHASING**

Based on the proposed design and scope of the project, it is estimated that the construction duration will be approximately 9 months. The initial work will involve clearing and grubbing of the project limits. For purposes of construction, a layout area of approximately 50' x 100' will be required for staging equipment. Additionally, another "Screening area" will be needed to remove and stockpile rocks and house soil cement mixture operations. A 613 scraper will most likely be used and since its minimum width is 10', we may wish to revise the current design of the keyway from 8' to 12' to accommodate this minimum width. In addition to the 613 scraper, a bulldozer will be required to cut the slope and a water truck for dust control. Another truck with metering capabilities will also be used for cement mixing, and most likely, a second water truck. Since "means and methods" will be up to the general contractor, actual equipment needed and used may differ from this anticipated list.

## **2.6 OPERATIONS**

It is anticipated that a professional services company specializing in construction management and inspection of similar projects will be retained to oversee construction operations. As part of the scope of services, a mitigation monitoring program will be established to ensure that all required items will be properly monitored and documented.

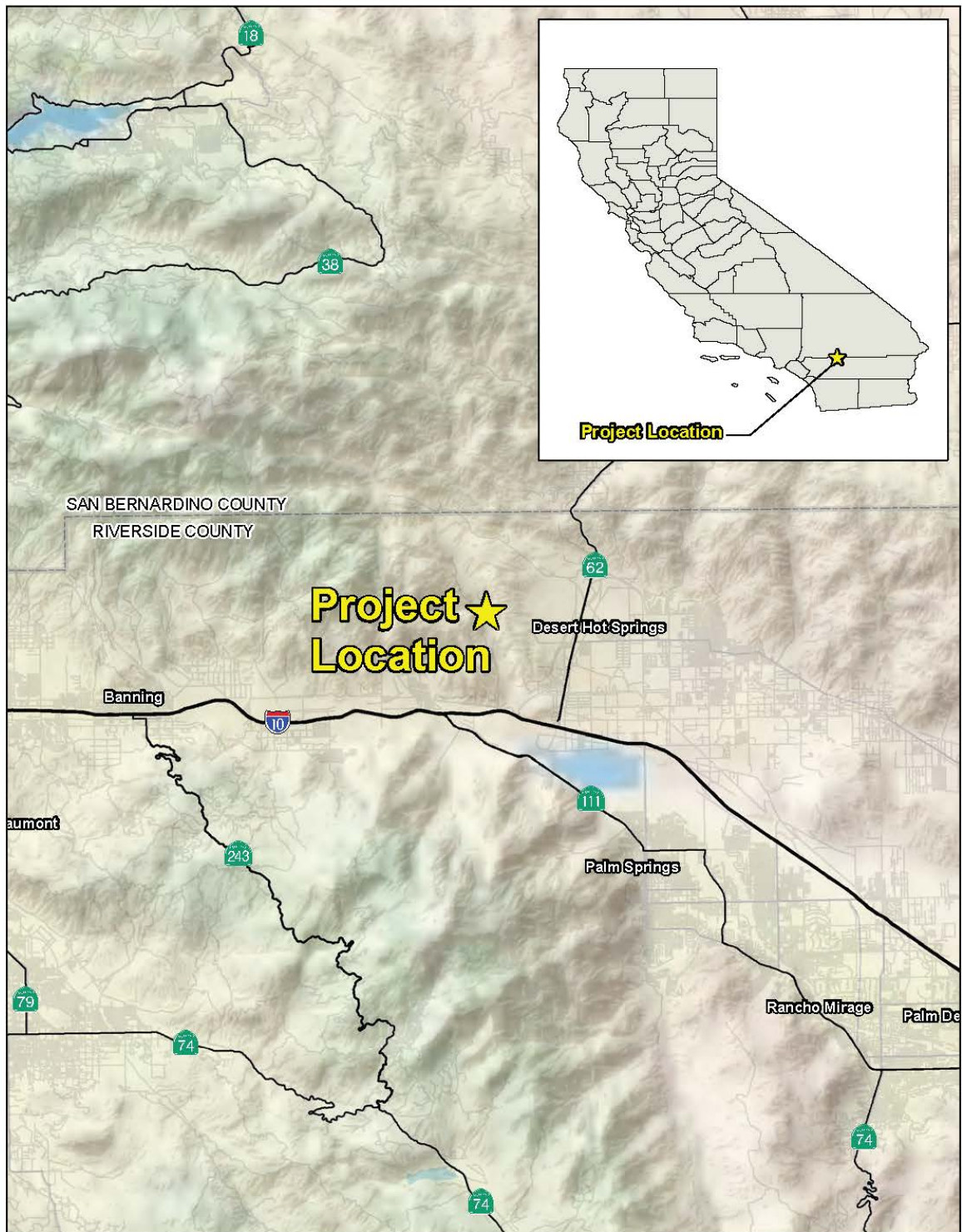
## **2.7 REQUIRED PERMITS AND APPROVALS**

- Compliance with Coachella Valley Multiple Species Habitat Conservation Plan
- United States Fish and Wildlife Service Section 7
- Regulatory Approvals – USACE 404, RWQCB 401, CDFW 1602
- Grading and building permits, Riverside County

## **2.8 PRIOR CEQA REVIEW**

None.

Figure 1: Regional Vicinity

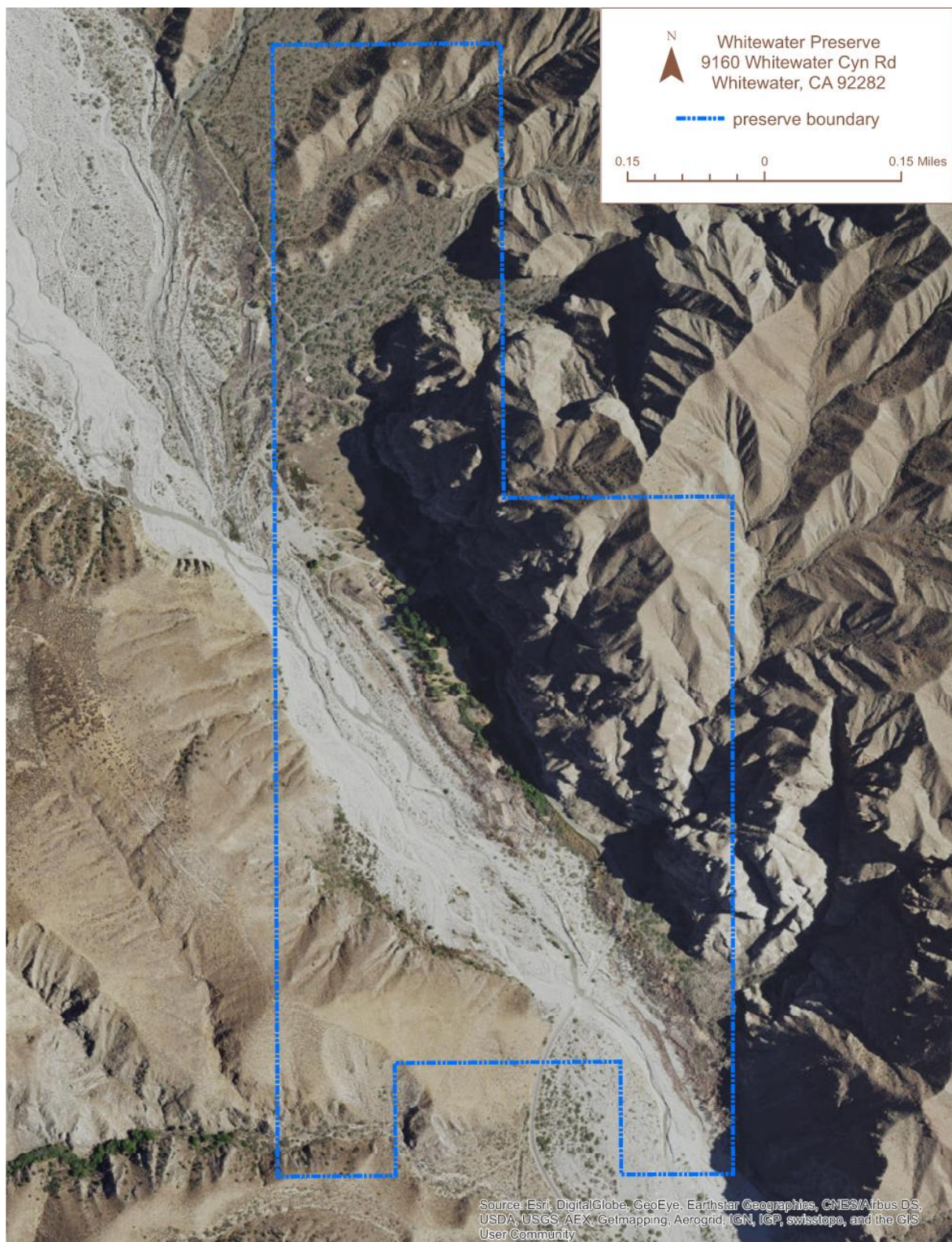


Source: ESRI Relief Map, National Highway Planning Network

Regional Vicinity



**Figure 2: Aerial Photograph**



**Figure 3: Levee Concept “A”**





### SECTION 3.0 – ENVIRONMENTAL DETERMINATION

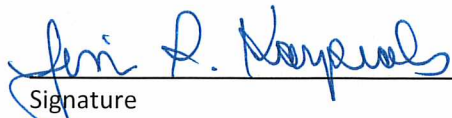
The environmental factors checked below would potentially be affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages.

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

### DETERMINATION

On the basis of this initial evaluation:

1. I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐
2. 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. ☒
3. I find the proposed Project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐
4. 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. ☐
5. 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. ☐

  
Signature  
Jim R. KARPIAK  
Name

12/4/2020  
Date  
EXECUTIVE DIRECTOR  
Title

## **SECTION 4.0 – ENVIRONMENTAL IMPACTS**

### **4.1 ORGANIZATION OF ENVIRONMENTAL ANALYSIS**

Sections 4.3.1 through 4.3.21 provide a discussion of the potential environmental impacts of the Project. The evaluation of environmental impacts follows the questions provided in the Checklist provided in the CEQA Guidelines.

### **4.2 TERMINOLOGY USED IN THIS ANALYSIS**

For each question listed in the IS checklist, a determination of the level of significance of the impact is provided. Impacts are categorized in the following categories:

- **No Impact.** A designation of no impact is given when no adverse changes in the environment are expected.
- **Less Than Significant.** A less than significant impact would cause no substantial adverse change in the environment.
- **Less Than Significant with Mitigation.** A potentially significant (but mitigable) impact would have a substantial adverse impact on the environment but could be reduced to a less-than-significant level with incorporation of mitigation measure(s).
- **Potentially Significant.** A significant and unavoidable impact would cause a substantial adverse effect on the environment and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.

### **4.3 EVALUATION OF ENVIRONMENTAL IMPACTS**

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 the project (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).

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.

Once the Lead Agency has determined that a particular physical impact may occur, 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.

“Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.”

Mitigation measures are identified and explain how they reduce the effect to a less than significant level (mitigation measures may be cross-referenced).

Earlier analyses may be used where, pursuant to the 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 analyses used where they are available for review
- b) Which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and whether such effects were addressed by mitigation measures based on the earlier analysis
- c) The mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project for effects that are “Less than Significant with Mitigation Measures Incorporated

References and citations have been incorporated into the checklist references to identify information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document, where appropriate, include a reference to the page or pages where the statement is substantiated.

Source listings and other sources used, or individuals contacted are cited in the discussion.

The explanation of each issue identifies:

- a) The significance criteria or threshold, if any, used to evaluate each question
- b) The mitigation measure identified, if any, to reduce the impact to less than significant.

#### 4.3.1 Aesthetics

The Project site is endowed with a variety of open space features which contribute to the character of the area and distinguish the vicinity from the surrounding region. Scenic vistas around the site include views of desert areas, washes, and hillsides.

a) Except as provided in Public Resources Code Section 21099 would the project have a substantial adverse effect on a scenic vista?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) Less than Significant Impact.** Views both into and out of the Project site consist of those typical in desert areas, including washes and hillsides. The Project site and surrounding areas are part of the existing Whitewater Preserve, intended to provide recreational opportunities to the general public. The proposed Project involves the construction of a flood control levee that would prevent the preserve from flooding in large storm events. The primary project feature to be constructed is the levee itself, generally in the same footprint as the existing levee. As a result, the Project would not affect scenic vistas as the land use is consistent with both existing conditions at the Project site as well as at all surrounding parcels. Implementation of the proposed Project would not have a substantial adverse on a scenic vista. Impacts would be less than significant.

b) Except as provided in Public Resources Code Section 21099 would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Less Than Significant Impact.** The Project is located along a County-eligible scenic highway according to the Riverside County General Plan. However, the Project proposes the construction of a flood control levee to replace an existing structure, for the sole purpose of protecting the preserve including trees and rock outcroppings within it. There are no historic structures on the site. Because the purpose of the project is to protect these and other scenic resources, and the result of implementation would be a similar structure to what is currently on the site, impacts would be less than significant.



c)	Except as provided in Public Resources Code Section 21099 would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- c) **No Impact.** As noted above, the Project proposes a flood control levee to protect existing public views of the site and its surroundings by preventing future flooding. As a result of this, and because the Project is of a similar nature to what is currently on the site, impacts would be less than significant.

d)	Except as provided in Public Resources Code Section 21099 would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- d) **Less than Significant Impact.** The Project proposes the replacement of an existing flood control levee for the purposes of long-term flood protection, and an increase in flood protection levels up to 500-year flood events. The area protected is a recreation site with no permanent residents, and the replacement levee does not include any surfaces that have the potential to generate light or glare during ongoing operations.

Construction of the levee would involve equipment that has windshields that could induce glare, however the unpopulated nature of the project site, the limited duration of construction, and the small scale of construction equipment relative to the overall size of the project area would ensure light and glare impacts are less than significant.

#### 4.3.2 Agriculture & Forestry Resources

This section examines potential project impacts on agricultural and forestry resources on the project site and its surroundings.

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
<p>a) 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: 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?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) **No Impact.** According to the California Department of Conservation Farmland Mapping and Program, the Project site is mapped Other/Unclassified and does not contain prime agricultural soils. There are no agricultural uses on the site. No impacts would occur.

b) 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: conflict with existing zoning for agricultural use, or a Williamson Act contract?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) No Impact.** The Project site is not zoned for agricultural use by the Riverside County General Plan and is not the site of any Williamson Act contracts. No impacts would occur.

c) 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: conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- c) **No Impact.** No part of the Project site or its surroundings are designated as timberland. No impacts would occur.

d) 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: result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- d) No Impact.** There is no designated forestland on the Project site, and the proposed Project would not affect forests during construction or operations. No impacts would occur.

e) 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: involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or the conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- e) **No Impact.** The Project site is not zoned for or under use as Farmland or forest land. No impacts would occur.

#### 4.3.3 Air Quality

HANA Resources performed an Air Quality/Greenhouse Gas Analysis associated with the proposed project in April 2020 (Appendix A).

##### Environmental Setting

###### Construction

For construction activities, the highest level of on-site emissions generally occurs during the mass grading activities. The California Emissions Estimator Model (CalEEMod) which is used to estimate emissions from various land use projects, identifies various kinds of equipment and the acreage disturbed in an 8-hour day. Based on the construction equipment inventory to be provided in **Table 6** below, a maximum area of less than five (5) acres would be disturbed in a day. For purposes of this LST assessment of construction emission, the emissions from the project were compared to the LST emission significance thresholds for a 5-acre area in the SCAQMD lookup tables.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. The CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment. The information in **Table 6** below is used to determine the maximum daily disturbed acreage for comparison to LSTs. Based on the above disturbance rate, the project would result in a maximum of less than five (5) acres disturbed during peak construction activity on any given day. The SCAQMD LST mass emission table, which provides construction emission significance thresholds for a disturbed area of less than five (5) acres, was used in the assessment.<sup>1</sup> This estimate is based on the construction equipment assumptions embedded in the CalEEMod defaults and represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site-specific construction fleet may vary, due to specific project needs at the time of construction.

Based on the project's location, daily construction emission area, and distance to nearest sensitive receptor, the relevant construction significance thresholds for a less than 5-acre area in the SCAQMD lookup tables for the project are summarized in **Table 3** below.

Table 3. SCAQMD Localized Significance Thresholds for Construction	
Pollutant <sup>1</sup>	Daily Emission Limit (lbs./day) <sup>2</sup>
NOx	425
CO	5,331
PM <sub>10</sub>	67
PM <sub>2.5</sub>	19
<b>Notes:</b> <sup>1</sup> SCAQMD has defined LSTs only for these pollutants <sup>2</sup> LSTs defined for SRA 30, less than 5-acre disturbed area and a 100-meter distance to the nearest sensitive receptor Source: SCAQMD 2009	

## Operations

For Project operations, the LST operational assessment was accomplished by comparison to the LST emission significance thresholds for a less than 5-acre area in the SCAQMD lookup tables. If the total air quality impact exceeds the values for the listed pollutants, then the project would be considered to have a significant air quality impact. Table 4 below provides a summary of the project's operational LSTs.

Table 4. SCAQMD Localized Significance Thresholds for Operations	
Pollutant <sup>1</sup>	Daily Emission Limit (lbs./day) <sup>2</sup>
NO <sub>x</sub>	425
CO	5,331
PM <sub>10</sub>	16
PM <sub>2.5</sub>	5
<b>Notes:</b> <sup>1</sup> SCAQMD has defined LSTs only for these pollutants <sup>2</sup> LSTs defined for SRA 30, less than 5-acre disturbed area and a 100-meter distance to the nearest sensitive receptor Source: SCAQMD 2009	

The SCAQMD has also defined localized significance thresholds for sulfur dioxide, sulfate, and lead. The Project, however, is not expected to emit insignificant amounts of these pollutants.

## Atmospheric Setting

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographical features. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with physical features of the landscape to determine their movement and dispersal, and consequently, their effect on air quality. The combination of topography and inversion layers generally prevents dispersion of air pollutants in the Air Basin.

The climate of the Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific, which results in a mild climate, tempered by cool sea breezes. Although the Air Basin has a semiarid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the basin by offshore winds, the ocean effect is dominant.

Winds are an important parameter in characterizing the air quality environment of a project site because they determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in the Air Basin are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean. These winds are usually the strongest in the dry summer months. Nighttime winds in the Air Basin result mainly from the drainage of cool air off the surrounding hills and mountains, and they occur more often during the winter months and are usually lighter than the daytime winds. Between the periods of dominant airflow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day.



During the winter and fall months, surface high-pressure systems north of the Air Basin, combined with other meteorological conditions, can result in very strong winds from the northeast called “Santa Ana Winds.” These winds normally have durations of a few days before predominant meteorological conditions are reestablished. The highest wind speed typically occurs during the afternoon due to daytime thermal convection caused by surface heating. This convection brings about a downward transfer of momentum from stronger winds aloft. It is not uncommon to have sustained winds of 60 miles per hour with higher gusts during a Santa Ana Wind.

### **Regulatory Setting**

Local Significance Thresholds (LSTs) have been developed by the SCAQMD, recognizing that criteria pollutants such as CO, NO<sub>x</sub>, and PM<sub>10</sub> and PM<sub>2.5</sub> in particular, can have local impacts as well as regional impacts. The evaluation of localized air quality impacts determines the potential of the Project to violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. LSTs, defined separately for construction and operational activities, represent the maximum emissions or air concentrations from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard at any nearby sensitive or worker receptor.

A sensitive receptor is defined by SCAQMD as any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

For projects of 5 acres or less where emissions would occur, the SCAQMD has developed a series of look up tables that provide estimates of daily construction or operational emissions above which a project’s emissions are determined to have a significant air quality impact. These LSTs are provided for each combination of pollutants (CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>), Source-Receptor Area (SRA), size of the project emission area, and distance to the nearest sensitive receptor. The Coachella Valley SRA for this Project is listed as number 30. The project size is generally represented as the maximum area disturbed during a day from which emissions are calculated.

In addition to the thresholds established above for pollutants, the SCAQMD has also defined health risk thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to toxic air contaminant (TAC)s. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of 70 years for sensitive receptors. Thus, an individual located in an area with a cancer risk of one would experience a one chance out of a population of one million of contracting cancer over a 70-year time period, assuming that individual lives in that area continuously for the entire 70-year time period.

TACs can also cause chronic (long-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system effects, birth defects, or other adverse environmental effects. Risk characterization for non- cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the project’s emissions to a concentration considered acceptable to public health professionals, termed the Reference Exposure Level (REL).

Both the state and federal government have been empowered by the Clean Air Act to regulate emissions of airborne pollutants. The federal agency responsible is the Environmental Protection Agency (EPA), while the state agency responsible is the California EPA (CalEPA). At the local level, air pollutants are regulated by both multi-county and county-level Air Pollution Control Districts (APCDs). There are 15 air basins across California. The Project site is located in the South Coast Air Quality Management District (SCAQMD).

Federal and state standards have been established for six criteria pollutants, including ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulates less than 10 and 2.5 microns in diameter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb). California air quality standards are identical to or stricter than federal standards for all criteria pollutants.

Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve “the maximum feasible reduction of greenhouse gases” emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state was signed into law in September 2002.

AB 32, the “California Global Warming Solutions Act of 2006,” requires the State’s global warming emissions to be reduced to 1990 levels by 2020 (essentially a 25% reduction below 2005 emission levels – the same requirement as under S-3-05), and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions.

Senate Bill (SB) 375 requires the inclusion of sustainable communities’ strategies (SCS) in regional transportation plans (RTPs) for the purpose of reducing GHG emissions. The bill requires ARB to set regional targets for the purpose of reducing greenhouse gas emissions from passenger vehicles, for 2020 and 2035.

a) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- (a) Less than Significant Impact.** The County of Riverside Climate Action Plan (CAP) includes measures developed to reduce 4,288,863 Metric Tons of Carbon Dioxide Equivalents (MTCO<sub>2e</sub>) per year from new development by 2020 as compared to the 2020 unmitigated conditions (County of Riverside 2018).

According to the CAP, mitigation of GHG emissions impacts during the development review process of projects provides a cost-effective way of implementing the GHG reduction strategies for reducing community-wide emissions associated with new development. A threshold level above 3,000 MTCO<sub>2e</sub> per year is used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions. The 3,000 MTCO<sub>2e</sub>

per year value is used in defining small projects that, when combined with the modest efficiency measures shown in the bullet points below are considered less than significant and do not need to use the Screening Tables or alternative GHG mitigation analysis. The efficiency measures required of small projects include:

- Energy efficiency of at least five percent greater than 2010 Title 24 requirements, and
- Water conservation measures that match the California Green Building Code in effect as of January 2011.

#### Construction Impacts

The emission values provided in the tables below (**Table 9**) are from the CalEEMod output tables, unmitigated.

Table 9. Estimated Construction Emissions						
Construction Phase	Total Daily Maximum Pollutant Emissions (lbs/day)					
	NOx	SOx	CO	ROG (VOC)	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>2020 Year</b>						
Site Preparation	1.4998	0.0014	0.7432	0.1416	0.5889	0.3452
Grading	9.2722	0.0105	5.0548	0.8439	1.8668	1.1590
<b>2021 Year</b>						
Grading	7.9453	0.0098	4.5682	0.7307	1.6953	1.0405
Peak Daily	9.2722	0.0105	5.0548	0.8439	1.8668	1.1590
SCAQMD Thresholds	100	150	550	75	150	55
Significant Emissions?	No	No	No	No	No	No

Because no exceedances of any threshold for criteria pollutants are expected, no significant impacts would occur for project construction. Details of the emission factors and other assumptions are included in Appendix A.

#### Localized Impact Analysis

The SCAQMD has issued guidance on applying CalEEMod results to localized impacts analyses. The sensitive receptors, residences and corresponding distance from the Project site are identified in Table 2. Peak day construction emissions would result in concentrations of pollutants at the nearest residence (District Ranger approximately 125 meters northeast) below the SCAQMD thresholds of significance (Table 10).

Table 10. Construction Localized Impacts Analysis				
Emissions Sources	NOx	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
On-Site Emissions (lbs/day)	9.2722	5.0548	1.8668	1.1590
LST Thresholds (lbs/day)	425	5,331	67	19
Significant Emissions?	No	No	No	No

### Operational Impacts

Operational air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. Typical area-source emissions from a project may come from natural gas use, landscaping equipment, and/or solid waste disposal. Mobile source emissions may come from patron and employee vehicles and supply and delivery trucks. However, the Project is the construction of a levee with little or no subsequent associated operational emissions and is therefore considered *de Minimis*.

As demonstrated by the results of the CalEEMod output tables for the proposed Project, the construction and operation of the levee would not result in any conflict with applicable air quality plans during either construction or long-term operations. Impacts would be less than significant.

b) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Less than Significant Impact.** The CalEEMod output tables above under Threshold A and included in Appendix A to this document indicate that the proposed Project does not have the potential emit significant quantities of any criteria pollutants, to include NO<sub>x</sub>, SO<sub>x</sub>, CO, ROG (VOC), or diesel particulate matter (DPM). As a result of a lack of significant emissions, the proposed Project does not have the potential to result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. Impacts would be less than significant.

c) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) Less than Significant Impact.** There are two (2) existing occupied structures close to the project as described in Table 2.

Table 2. Location of Sensitive Receptors		
Receptor Address	Location Relative to Project <sup>1</sup>	Type of Receptor
9160 Whitewater Canyon Road, Whitewater, CA 92282	125 meters northeast	District Ranger Residence
9160 Whitewater Canyon Road, Whitewater, CA 92282	195 meters northeast	Ranger Station/Visitor Center
Note: <sup>1</sup> Relative straight-line distance from existing sensitive receptor structures to the nearest Project property boundary.		

Based on a review of the existing information, the nearest sensitive receptor is District Ranger Residence northeast of the Project site. A workshop is located approximately 15 meters northwest of the residence and is occupied intermittently during normal working hours. Due to an overall lack of housing in or near the Project area, the complete absence of high-risk land uses such as schools and daycares, and the fact that the only two nearby structures are both associated with the preserve itself, impacts would be less than significant.

d) Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- d) No Impact.** The proposed Project involves the construction of a levee that would replace the current structure and serve the same purpose. Although construction emissions have the capacity to emit objectionable odors, the project is in a rural, unpopulated area with a near total absence of sensitive receptors including schools. No long-term operational odor emissions would occur once the construction of the levee is complete. No impacts would occur.

#### **4.3.4 Biological Resources**

ELMT Consulting prepared a Habitat Assessment and Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) Consistency Analysis and Delineation of State and Federal Jurisdictional Waters Report in June 2020 for the proposed project (Appendix B).

The Habitat Assessment and CVMSHCP Consistency Analysis was conducted to characterize existing site conditions and assess the potential for the occurrence of special status<sup>1</sup> plant and wildlife species that could pose a constraint to project implementation. ELMT biologists Thomas J. McGill, Ph.D., Travis J. McGill, and Jacob H. Lloyd Davies inventoried and evaluated the condition of the habitat within the Project site on January 7 and April 2, 2020. During the survey, the Project impact area and a 250-foot buffer were surveyed (i.e., Survey Area).

##### **Existing Setting**

Land uses in the vicinity of the Project site mostly consists of vacant, undeveloped land consisting of natural habitats associated with Whitewater Canyon. The Whitewater River traverses the western boundary of the Project site from north to south. The unincorporated community of Bonnie Bell is located south of the Whitewater Preserve, which is approximately 9.5 miles northwest of Palm Springs. Areas to the east and west consist of vacant, undeveloped land within the San Bernardino Mountains.

The Whitewater Preserve is owned by The Wildlands Conservancy and operates as a non-profit nature preserve. It offers free access to the public for outdoor recreation, includes a visitor center located in the former Whitewater Trout Farm, and serves as an access point into the Sand to Snow National Monument. With the exception of the existing earthen levee the project site is relatively undeveloped and supports native habitats.

##### **Vegetation Communities**

Four (4) plant communities were observed within the boundaries of the Survey Area during the habitat assessment: alluvial scrub, Sonoran cottonwood willow riparian forest, Sonoran creosote scrub, and non-native grassland. In addition, the project site contains a land cover type that would be classified as disturbed. These plant communities and land cover type are described in further detail below.

##### *Alluvial Scrub*

The alluvial scrub plant community is found on the western portion of the Survey Area in association with the active channel of the Whitewater River. The active channel of the Whitewater River flows through this plant community, and this plant community is subject to flooding events following significant storm events. This plant community is characterized by braided channels of intermittent streams and rivers. Substrates consist of open cobble with sandy soil deposits. Plant species observed within this plant community include scalebroom (*Lepidospartum squamatum*), yerba santa (*Eriodictyon trichocalyx*), mulefat (*Baccharis salicifolia*), buckwheat (*Eriogonum fasciculatum*), beavertail cactus (*Opuntia basilaris*), deerweed (*Acmispon glaber*), cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), California

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<sup>1</sup> As used in this report, "special-status" refers to plant and wildlife species that are federally or State listed, CVMSHCP Listed, proposed, or candidates; plant species that have been designated a California Native Plant Society (CNPS) Rare Plant Rank; and wildlife species that are designated by the California Department of Fish and Wildlife (CDFW) as fully protected, species of special concern or watch list species.

croton (*Croton californicus*), Wiggins' cholla (*Condea emoryi*), hairy parish viguiera (*Bahiopsis parishii*), and brittlebush (*Encelia farinosa*).

#### *Sonoran Cottonwood Willow Riparian Forest*

The Sonoran cottonwood willow riparian forest plant community was observed on the eastern and northwestern portions of the Survey Area. Dominant trees within this plant community include narrowleaf willow (*Salix exigua*), red willow (*Salix laevigata*), and mulefat. In addition, western sycamore (*Platanus racemosa*) and Fremont cottonwood (*Populus fremontii*) are found within this plant community. Low growing plant species found within the understory of this plant community includes California mugwort (*Artemisia douglasiana*), yellow sweetclover (*Melilotus indicus*), yellow monkey flower (*Mimulus guttatus*), rabbits foot grass (*Polypogon monspeliensis*), and stinging nettle (*Urtica dioica*).

#### *Sonoran Creosote Scrub*

The top of the existing earthen levee supports a Sonoran Creosote scrub plant community. Plant species observed within this plant community include cheesebush, sweetbush, brittlebush, and desert mallow (*Sphaeralcea ambigua*). Other low growing plant species found within this plant community include California croton, yellow turbans (*Eriogonum pusillum*), desert trumpet (*Eriogonum inflatum*), and desert chicory (*Rafinesquia neomexicana*).

#### *Non-Native Grassland*

The non-native grassland plant community can be found within the northeast portion of the Survey Area, within the existing Whitewater Preserve. This plant community is dominated by non-native plant species: wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), foxtail brome (*Bromus madritensis* ssp. *rubens*), downy brome grass (*Bromus tectorum*), fountain grass (*Pennisetum setaceum*), and Mediterranean grass (*Schismus barbatus*) and is subject to frequent anthropogenic disturbances.

#### *Disturbed*

Disturbed areas primarily occur in the middle of the Survey Area in association with the existing earthen levee and dirt access roads/trails. These areas are routinely exposed to anthropogenic disturbances associated with vehicle traffic and recreational activities. Surface soils within these areas are generally devoid of vegetation and when vegetation is present, these areas can support early successional and non-native weedy plant species.

### **Aquatic Features/Jurisdictional Waters and Wetlands**

One intermittent/perennial drainage feature (Whitewater River) runs north to south along the western boundary of the Survey Area. The Whitewater River possesses a surface hydrologic connection downstream to the Salton Sea, a Traditional Navigable Water, and will qualify as a water of the United States subject to Corps jurisdiction under Section 404 of the CWA. In addition, the Whitewater River will qualify as a "Water of the State" under the regulatory authority of the Regional Board, and jurisdictional streambed under the regulatory authority of CDFW.

### **Sensitive Biological Resources**

The California Natural Diversity Database (CNDDDB) Rarefind 5, CNDDDB Quickview Tool in Biographic Information and Observation System (BIOS), and the California Native Plant Society (CNPS) Electronic



Inventory of Rare and Endangered Vascular Plants of California was queried for reported locations of special-status plant and wildlife species as well as special-status plant communities in the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirty-five (35) special-status plant species, ninety-two (92) special-status wildlife species, and three (3) special-status plant communities as having potential to occur within the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions.

### *Special-Status Plants*

Thirty-five (35) special-status plant species have been recorded in the CNDDDB and CNPS in the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles. No special-status plant species were observed on-site during the habitat assessment or during the 2020 focused special-status plant survey.

Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, the undeveloped portions of the project site were determined to have a high potential to provide suitable habitat for Coachella Valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), triple-ribbed milk-vetch (*Astragalus tricarlinatus*), little San Bernardino Mountains linanthus (*Linanthus maculatus*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*) and white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*). All remaining special-status plant species have a low potential to occur or are presumed to be absent from the project site based on habitat requirements, availability/quality of habitat needed by each species, and known distributions. Please refer to the following section for a detailed assessment of the potential occurrence of the aforementioned special-status plant species.

#### *Coachella Valley Milk-vetch*

Coachella Valley milk-vetch is an erect winter annual or a short-lived perennial that blooms between February and May, producing pink to deep-magenta colored flowers. It is federally listed as endangered and is designated by the CNPS with the Rare Plant Rank 1B.2, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. It is endemic to California and is only known from Riverside County and occurs in dunes and sandy flats, along the disturbed margins of sandy washes, and in sandy soils along roadsides where they occur adjacent to existing sand dunes. Coachella Valley milk-vetch occurs in the coarser sands at the margins of dunes and is strongly affiliated with sandy substrates. This species may also occur in sandy substrates in creosote bush scrub not associated with sand dune habitats and in localized pockets where sand has been deposited by wind or by active washes. This species is fully covered under the CVMSHCP.

Coachella Valley milk-vetch was not observed within the Survey Area during the 2020 special-status plant species focused survey. The northern end of the proposed project footprint is located within designated Critical Habitat for this species (78 Federal Register [FR] 10449 10497). Specifically, the project site is located within designated Critical Habitat Unit 2. The project site supports the fluvial sand transport



processes that provides suitable habitat favored by this species. Although not observed, it was determined that Coachella Valley milk-vetch has a high potential to occur within the boundaries of the project site. Based on the results of the 2020 special-status plant species focused survey, this species is presumed absent from the project site.

#### *Triple-ribbed Milk-vetch*

Triple-ribbed milk-vetch is short-lived erect perennial (2 to 10 inches in height) in the Fabaceae (pea) family that blooms from February to May, producing white or pale cream-colored flowers. It is federally listed as endangered and is designated by the CNPS with the Rare Plant Rank 1B.2, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. Triple-ribbed milk-vetch is found in a narrow range primarily from the northwestern portion of the Coachella Valley, from the vicinity of Whitewater Canyon, in Mission Creek Canyon across Highway 62 to Dry Morongo Wash and Big Morongo Canyon. Preferred habitat for triple-ribbed milk-vetch has been characterized as sandy and gravelly soils of dry washes or on decomposed granite or gravelly soils at the base of canyon slopes. However, most observations of this species have been in natural or man-made disturbed areas. For example, observations have been made along washes, on canyon bottoms where slides or flooding occurs. This species is fully covered under the CVMSHCP.

Triple ribbed milk-vetch was not observed within the Survey Area during the 2020 special-status plant species focused survey. The project site is located within CVMSHCP Core Habitat for this species. Further the project site provides the suitable habitat for this species; sandy and gravelly soils along a wash that is at the base of a canyon slope. In 2010, an unknown number of triple-ribbed milk-vetch was recorded north of the Survey Area (CNDDDB 2010). Although not observed, it was determined that triple-ribbed milk-vetch has a high potential to occur within the boundaries of the project site. Based on the results of the 2020 special-status plant species focused survey, this species is presumed absent from the project site.

#### *Little San Bernardino Mountains Liananthus*

Little San Bernardino Mountains linanthus is an annual herb in the Phlox family. It is designated by the CNPS with the Rare Plant Rank 1B.2, that it is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. The preferred Habitat of Little San Bernardino Mountains linanthus is in loose soft sandy soils on low benches along washes, generally where the substrate shows some evidence of water flow. It seems to occur in areas where few or no competing species are found, with little shrub or tree cover in the immediate vicinity. The sand is loose and well-aerated, soft and unconsolidated. This species typically occurs on the margins of washes on shallow sandy benches, not on areas where a hard surface layer occurs, and not on loose blowsand away from washes. It is associated with creosote bush scrub, but avoids growing in the shadow of other plants.

The project site provides the suitable habitat for this species, sandy or rocky openings within Sonoran Desert scrub plant community. An unknown number of little San Bernardino Mountains linanthus was observed just south of the survey area. It was determined little San Bernardino Mountains linanthus has a moderate potential to occur within the boundaries of the survey area. This species was not observed within the project footprint during a 2020 focused special-status plant survey.

### *Parry's Spineflower*

Parry's spineflower is an annual species in the buckwheat family. It blooms from April to June and comprised of white flowers with brown achenes 2.5 to 3mm long. It is designated by the CNPS with the Rare Plant Rank 1B.1, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered seriously endangered in California. Parry's spineflower is known from the flats and foothills of the San Gabriel, San Bernardino and San Jacinto Mountains within Los Angeles, San Bernardino and Riverside Counties of southern California. Preferred habitat for Parry's spineflower has been characterized as alluvial chaparral and scrub of the San Bernardino and San Jacinto Mountains. This species is not covered under the CVMSHCP.

Parry's spineflower was not observed within the Survey Area during the 2020 special-status plant species focused survey. The project site provides the suitable habitat for this species, sandy or rocky openings within chaparral plant community. In 2003, an unknown number of Parry's spineflower was observed south of the Survey Area midway between Bonnie Bell and Whitewater Preserve (CNDDDB 2003). Although not observed, it was determined Parry's spineflower has a high potential to occur within the boundaries of the project site. Based on the results of the 2020 special-status plant species focused survey, this species is presumed absent from the project site.

### *White-bracted Spineflower*

White-bracted spineflower is an annual species in the buckwheat family. It blooms from April to June and comprised of pink to red flowers. It is designated by the CNPS with the Rare Plant Rank 1B.2, indicating that is rare, threatened, or endangered in California and elsewhere, and is considered fairly threatened in California, with 20-80% of its known occurrences threatened. White-bracted spineflower is endemic to California and is only known from San Jacinto and San Bernardino Mountains. Preferred habitat for this species has been characterized as sandy or gravelly soils within alluvial fans. This species is not covered under the CVMSHCP.

White-bracted spineflower was not observed within the Survey Area during the 2020 special-status plant species focused survey. The project site provides the suitable habitat for this species, sandy or rocky soils within alluvial fans. In 2003, an unknown number of white-bracted spineflower was observed south of the Survey Area midway between Bonnie Bell and Whitewater Preserve (CNDDDB 2003). Although not observed, it was determined white-bracted spineflower has a high potential to occur within the boundaries of the project site. Based on the results of the 2020 special-status plant species focused survey, this species is presumed absent from the project site.

### *Special-Status Wildlife*

Ninety-two (92) special-status wildlife species have been reported by the CNDDDB in the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles. Cooper's hawk (*Accipiter cooperii*), southwestern willow flycatcher, American peregrine falcon (*Falco peregrinus anatum*), yellow-breasted chat (*Icteria virens*), summer tanager (*Piranga rubra*), black-tailed gnatcatcher (*Polioptila melanura*), vermilion flycatcher (*Pyrocephalus rubinus*), yellow warbler (*Setophaga petechia*), two-striped garter snake (*Thamnophis hammondi*), and least Bell's vireo were the only special-status wildlife species observed within the project site during the field investigations.

Based on habitat requirements for specific special-status wildlife species and the availability and quality of habitats needed by each species, the undeveloped portions of the project site were determined to have

a high potential to provide suitable habitat for great blue heron (*Ardea herodias*), Costa's hummingbird (*Calypte costae*), little willow flycatcher (*Empidonax traillii brewsteri*), loggerhead shrike (*Lanius ludovicianus*); and a moderate potential to provide suitable habitat for sharp-shinned hawk (*Accipiter striatuserii*), California glossy snake (*Arizona elegans occidentalis*), snowy egret (*Egretta thula*), prairie falcon (*Falco mexicanus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). All remaining special-status wildlife species have a low potential to occur or are presumed to be absent from the project site based on habitat requirements, availability/quality of habitat needed by each species, and known distributions.

Please refer to the following section for a detailed assessment of the potential occurrence of arroyo toad, southwestern willow flycatcher, and least Bell's vireo. These species are all federally and/or state listed endangered and/or threatened.

#### *Arroyo Toad*

The arroyo toad inhabits rivers and streams of coastal southern California, from Monterey County southward into northern Baja California, Mexico. In the United States, the arroyo toad was listed as an endangered species on December 16, 1994 (59 Federal Register 64859). In California, the arroyo toad is federally endangered and is considered a California Species of Concern. This species is also fully covered under the CVMSHCP. The arroyo toad is about 2 to 3 inches in length with light olive green, gray, or light brown skin color with a light-colored stripe shaped "V" across the head and eyelids. Arroyo toads are found in low gradient, medium-to-large streams and rivers with intermittent and perennial flow in coastal and desert drainages in central and southern California, and Baja California, Mexico. Arroyo toads occupy aquatic, riparian, and upland habitats within its range and require slow-moving streams that are composed of sandy soils with sandy streamside terraces. Suitable habitat is created and maintained by periodic flooding and scouring that modify stream channels, redistribute channel sediments, and alter pool location and form.

The most important factors in determining habitat suitability for arroyo toads are stream order, elevation, and floodplain width. Stream order ranks the size and potential power of streams. The smallest channels in a watershed with no tributaries are referred to as first-order streams. When two first-order streams unite, they form a second-order stream; when two second-order streams unite, they form a third-order stream, and so on. Fifth- and sixth-order streams are usually larger rivers, while first- and second-order streams are often small, steep, or intermittent. Arroyo toads are found at the lower end of the third to sixth order stream segments where the coarsest sediments are lacking, and flow rates are great enough to keep silt and clay suspended. Arroyo toads breed and deposit egg masses in shallow, sandy pools bordered by sand and gravel flood terraces. Outside of the breeding season, arroyo toads are terrestrial utilizing riparian habitats with low to moderate vegetative cover for foraging and burrowing. Adult and sub-adult arroyo toads seek shelter during the day and other periods of inactivity by burrowing into upland terraces, along flood channels, and often in the soils below the canopy edge of willows or cottonwoods.

The substrate in habitats preferred by arroyo toads consists of sand, fine gravel, or friable soil, with varying amounts of large gravel, cobble, and boulders. Areas utilized by juveniles consists of sand or fine gravel bars adjacent to stabilized sandy terraces and oak flats. Habitats used outside of the breeding season for foraging and burrowing include riparian habitats such as sand bars, alluvial terraces, and streamside benches with no vegetation or have low to moderate cover composed of California sycamore, coast live oak (*Quercus agrifolia*), mulefat, cottonwoods, and willows. The types of uplands habitats include alluvial

scrub, coastal sage scrub, chaparral, grassland, and oak woodland. Studies have shown that arroyo toads are known to utilize upland habitats up to 1,063 feet from the active channel.

Arroyo toad was not observed within the boundaries of the project site during the field investigations. Per the CVMSHCP, a population of arroyo toads was observed in Whitewater Canyon in 1992. In 1994, this Whitewater River population was included in the species account update as one of the six known desert populations. However, following this update, numerous surveys of the area have not identified arroyo toad. In 2001 and 2003, U.S. Geological Survey (USGS) conducted detailed inventories, but did not detect this species within Whitewater Canyon (Ervin, Beaman, and Fisher 2013). Further, the initial reports contained photo documentation that was later examined and determined to be an adult, red-spotted toad (*Bufo punctatus*), not a juvenile arroyo toad (Ervin, Beaman, and Fisher 2013). Based on USGS surveys and the reevaluation of photographic evidence taken from the Whitewater River, the original records of arroyo toads occurring in within Whitewater Canyon is considered an error. Further, there is no other evidence of this species occurring within the Coachella Valley. USFWS has reconsidered the critical habitat determination of arroyo toad for the Whitewater River area stating that area does not meet the criteria for critical habitat of the species (USFWS 2011). Arroyo toads are presumed absent within the boundaries of the project site. No further surveys are recommended.

#### *Southwestern Willow Flycatcher*

The willow flycatcher is a nearly transcontinental species which breeds widely across temperate North America and migrates to Middle and northwestern South America for the winter. It consists of the following four subspecies, all of which are migratory. The species as a whole winter from southern Mexico south through Central America to Panama and western Venezuela. Subspecies *extimus* has been collected in winter in Guatemala, El Salvador, Honduras, and Costa Rica (Unitt, 1997). Migrants of the more northern subspecies occur commonly in the breeding range of *extimus*. Because southern California lies across the main migration route of *brewsteri*, and specimens of *brewsteri* outnumber specimens of *extimus* in its own range. In fact, with the population crash of *extimus*, almost all Willow Flycatchers seen in southern California are *brewsteri*. *Extimus* is encountered only at the few sites where it breeds. In southern California the subspecies *extimus* arrives in spring, usually in early May.

The southwestern willow flycatcher is a federally and state endangered species that usually arrives in southern California in early May, but rarely as early as the last two or three days of April. This species is also fully covered under the CVMSHCP. In fall, adults depart mainly during the last half of August, but rarely can remain as late as September 4th. Juveniles remain until later in September, but all have departed by October 1st. The southwestern willow flycatcher breeds only in riparian habitats, typically along a dynamic river or lakeside. Surface water or saturated soil is usually present in or adjacent to nesting sites during at least the initial portion of the nesting period (Muiznieks et al., 1994; Tibbitts et al., 1994). Riparian habitats used by southwestern willow flycatchers typically have a dense thicket of trees and shrubs that can range in height from about 2 to 30 meters. Preferred nesting sites usually contain riparian foliage from the ground level up to a dense (about 50 to 100 percent) tree or shrub canopy.

Southwestern willow flycatcher was detected within the riparian habitats adjacent to the project site, outside of the proposed limits of disturbance during the 2020 focused surveys. However, these individuals were observed during the beginning of their migration period and are assuming to be migratory individuals that are not nesting onsite.

### *Least Bell's Vireo*

Least Bell's vireo is a federally and state endangered subspecies of the Bell's vireo. Least Bell's vireo is also covered under the CVMSHCP. It is a summer migrant to California and is the only regularly occurring subspecies of Bell's vireo in San Bernardino County. Its nesting habitat typically consists of a well-developed over-story and understory, along with low densities of aquatic and herbaceous plant cover. The understory frequently contains dense sub-shrub or shrub thickets that are often dominated by plants such as willow, mulefat, and one or more herbaceous species. Least Bell's vireos begin to arrive at their breeding grounds in southern California riparian areas from mid-March to early April. Upon arrival, males establish breeding territories that range in size from 0.5 to 7.4 acres, with an average size of approximately two acres. In California, females begin laying eggs in April, fledging birds until the end of July (Kus et al. 2010). The fledglings will remain in the parental territory for up to a month. Bell's vireos leave the breeding grounds and migrate south mid- to late September. Although not common, a few have been found wintering in southern California (Hamilton and Willick 1996).

Least Bell's vireo was detected during 2020 focused surveys within the riparian habitats adjacent to the project site, outside of the proposed limits of disturbance. This plant community provides the preferred plant species composition, density, and structure needed to provide suitable nesting habitat for least Bell's vireo. Since least Bell's vireo is a CVMSHCP covered species, although the project development will not directly impact least Bell's vireo habitat, adherence to the avoidance and minimization measures from the CVMSHCP should be followed in order to ensure no impacts to least Bell's vireo.

### *Sensitive Plant Communities*

According to the CNDDDB, three (3) special-status plant community have been in the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles: Desert Fan Palm Oasis Woodland, Mesquite Bosque, and Mojave Riparian Forest. Based on the results of the habitat assessment, no special-status plant communities are present within the project site.

### *Critical Habitat*

Under the federal Endangered Species Act (FESA), "Critical Habitat" is designated at the time of or within one year of listing of a species. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether the species is present or not. In the event that a project may result in a loss or adverse modification to a species' designated Critical Habitat, a project proponent may be required to engage in suitable mitigation. However, consultation with USFWS for impacts to Critical Habitat is only required when a project has a federal nexus. Examples of projects with a federal nexus may include projects that occur on federal lands, require a federal permit (e.g., CWA Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be consult with the USFWS under Section 7 of the FESA.

The northern portion of the proposed project footprint is located within designated Critical Habitat for Coachella Valley milk-vetch. The issuance of a CWA Section 404 permit for impacts to the Whitewater River will trigger the need for the Corps to consult with the USFWS under Section 7 of the FESA for loss or adverse modification to Critical Habitat. However, consistency with the CVMSHCP will help guide the

Section 7 process. It should be noted that no Coachella Valley milk-vetch were observed on-site during the 2020 special-status plant species focused survey.

### **Wildlife Movement**

Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet, inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site is located within the Whitewater Canyon Conservation Area of the CVMSHCP. The area along the Whitewater River provides a Linkage and wildlife corridor between the Snow Creek/Windy Point Conservation Area and the Core Habitat portion of the Whitewater Floodplain Conservation area, as well as with the Whitewater Canyon Conservation Area. The project site consists of vacant, undeveloped land that is dominated by natural habitats throughout. These natural areas allow wildlife to move through the region in search of food, shelter, or nesting habitat. Additionally, the project site could be used as a wildlife movement corridor between the Coachella Valley and Little San Bernardino Mountain to the east and the San Bernardino Mountains to the west. Although the development of the proposed permanent flood control structure may result in the loss of natural habitats, project activities are not expected to eliminate wildlife movement opportunities or prevent the surrounding habitat from continuing to function as a wildlife corridor. Although the proposed project may result in a temporal loss of wildlife movement opportunities during construction, the completion of the project will provide long-term protection of wildlife movement opportunities along the Whitewater River.

### **Biological Resources Protected by Local Policies and Ordinances**

#### *Coachella Valley Multiple Species Habitat Conservation Plan*

The project site is located within the boundaries of the CVMSHCP Area, specifically within the Whitewater Canyon Conservation Area.

The proposed project is not listed as a planned “Covered Activity” under the published CVMSHCP but is still considered to be a current Covered Activity pursuant to Section 7.3 of the CVMSHCP. According to Section 7.3 of the CVMSHCP, implementation of the Plan will provide permits for covered species for Covered Activities within conservation areas if: *“Development and the associated ground disturbance, consistent with the Conservation Goals and Conservation Objectives within Conservation Areas and Species Conservation Goals and Objectives; and including the construction, operation, and maintenance of new flood control facilities and local roadways which are either: (1) approved as part of a development proposal or (2) dedicated, or offered for dedication, for public use, are Covered Activities.”*

As a Covered Activity located within a designated conservation area, construction of the proposed project is subject to the applicable avoidance, minimization, and mitigation measures as described in Section 4.4 of the CVMSHCP. In accordance with the CVMSHCP required measures for the Whitewater Canyon Conservation Area, activities and projects involving water diversions in modeled arroyo toad habitat are



not considered Covered Activities if arroyo toad is present. If arroyo toad is present, take authorization for such activities will requires a Minor Amendment to the CVMSHCP with Wildlife Agency concurrence. It should be noted that the 2013 article, *Correction of Locality Records for the Endangered Arroyo Toad (Anaxyrus californicus) from the Desert Region of Southern California*, refuted the previous identifications of arroyo toad within the Sonoran Desert portions of Riverside County and stated that there are no longer any valid records of the arroyo toad within the Sonoran Desert bioregion, including the Whitewater River and the project site. Therefore, a Minor Amendment to the CVMSHCP is not anticipated.

#### *Joint Project Review*

All projects implemented under local permittees' jurisdiction in a conservation area that would result in disturbance to habitat, natural communities, biological corridors, or essential ecological processes are subject to a Joint Project Review Process. The purpose of the review is to allow the Coachella Valley Conservation Commission (CVCC) to facilitate and monitor the implementation of the CVMSHCP within the Plan Area. The proposed project is located within the Whitewater Canyon Conservation Area and would result in both positive and negative impacts to habitat, natural communities, biological corridors, and essential ecological processes (i.e., sand transport), and thus is subject to the Joint Project Review Process.

#### *Focused Survey Results*

This section describes surveys that are required by the CVMSHCP for covered species that are known to occur within the Whitewater Canyon Conservation Area, as well as a review of their potential to occur within the project site based on field investigations. Mitigation text is taken directly from Section 4.4 of the MSHCP, but only those parts that are relevant to the project site are included.

#### *Coachella Valley Milk-vetch*

Based on habitat requirements for Coachella Valley milk-vetch and the availability and quality of habitats needed by this species, it was determined this species has a high potential to occur within the boundaries of the project site. A focused special-status plant survey was conducted during the 2020 blooming season, and this species was not observed on-site. The CVMSHCP does not require any surveys or additional measures for this species to remain in compliance.

#### *Triple-ribbed Milk-vetch*

Based on habitat requirements for triple-ribbed milk-vetch and the availability and quality of habitats needed by this species, it was determined this species has a high potential to occur within the boundaries of the project site. A focused special-status plant survey was conducted during the 2020 blooming season, and this species was not observed on-site. The CVMSHCP does not require any surveys or additional measures for this species to remain in compliance.

#### *Arroyo Toad*

Based the reevaluation of previous survey data and the lack of arroyo toad within the boundaries of the project site during past surveys, it was determined this species is presumed absent within the boundaries of the project site. Presence/absence surveys for arroyo toad are not recommended. The CVMSHCP does not require any surveys or additional measures for this species to remain in compliance.

### *Southwestern Willow Flycatcher*

A focused special-status southwestern willow flycatcher survey was conducted during the 2020 survey period. Southwestern willow flycatcher was detected within the riparian habitats adjacent to the project site, outside of the proposed limits of disturbance during the 2020 focused surveys. However, these individuals were observed during the beginning of their migration period and are assumed to be migratory individuals that are not nesting onsite.

To ensure no impacts to southwestern willow flycatcher, Covered Activities are recommended to occur outside of the nesting season.

### *Least Bell's Vireo*

Least Bell's vireo was detected during 2020 focused surveys within the riparian habitats adjacent to the project site, outside of the proposed limits of disturbance. This plant community provides the preferred plant species composition, density, and structure needed to provide suitable nesting habitat for least Bell's vireo. Since least Bell's vireo is a CVMSHCP covered species, although the project development will not directly impact least Bell's vireo habitat, adherence to the avoidance and minimization measures from the CVMSHCP should be followed in order to ensure no impacts to least Bell's vireo.

Per the CVMSHCP, Covered Activities, including Operation and Maintenance Activities (O&M) of facilities and construction of permitted new projects, in riparian habitats will be conducted to the maximum extent feasible outside of the March – September 15 nesting season for least Bell's vireo. If Covered Activities must occur during the nesting season, surveys shall be conducted to determine if any active nests are present. If active nests are identified, the Covered Activity shall not be conducted within 200 feet of an active nest. If surveys conducted during the nesting season document that Covered nesting riparian bird species are not present, the Covered Activity may proceed.

### *Land Use Adjacency Guidelines*

The purpose of Land Use Adjacency Guidelines (Section 4.5 of the CVMSHCP) is to avoid or minimize indirect effects from development adjacent to or within the Conservation Areas. Adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats. The project site is located within the Whitewater Canyon Conservation Area, and as such the following Land Use Adjacency Guidelines shall be considered and implemented where applicable.

### *Drainage*

*Proposed Development adjacent to or within a Conservation Area shall incorporate plans to ensure that the quantity and quality of runoff discharged to the adjacent Conservation Area is not altered in an adverse way when compared with existing conditions. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the adjacent Conservation Area.*

The proposed project would minimally alter the flow direction of water within the Whitewater River, but all existing and future flows are still located within the Whitewater River Conservation Area. The proposed levee will generally be located within the existing footprint of the existing earthen levee.



#### Toxics

*Land uses proposed adjacent to or within a Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife and plant species, Habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in any discharge to the adjacent Conservation Area.*

The proposed project would not generate toxic bioproducts or use toxic chemicals. Any spills of hazardous materials from project vehicles or equipment would be contained, cleaned up, and disposed of immediately.

#### Lighting

*For proposed Development adjacent to or within a Conservation Area, lighting shall be shielded and directed toward the developed area. Landscape shielding or other appropriate methods shall be incorporated in project designs to minimize the effects of lighting adjacent to or within the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.*

The proposed project would not require any additional lighting.

#### Noise

*Proposed Development adjacent to or within a Conservation Area that generates noise in excess of 75 dBA Leq hourly shall incorporate setbacks, berms, or walls, as appropriate, to minimize the effects of noise on the adjacent Conservation Area in accordance with the guidelines to be included in the Implementation Manual.*

The project site should have a physical separation or barrier included in its design between the proposed development and the Sonoran cottonwood-willow riparian forest plant community, east of the project footprint. A barrier would significantly lessen any noise exposure to any CVMSHCP-covered species. Construction-related noise will be mitigated to be consistent with the City of Riverside's Noise Ordinances by limiting construction activities to daytime hours and requiring construction equipment to be tuned and equipped with mufflers. Under the CVMSHCP, wildlife within the CVMSHCP Conservation Area should not be subject to noise that would exceed 75dBA Leg.

#### Invasives

*Invasive, non-native plant species shall not be incorporated in the landscape for land uses adjacent to or within a Conservation Area. Landscape treatments within or adjacent to a Conservation Area shall incorporate native plant materials to the maximum extent Feasible; recommended native species are listed in Table 4-112. The plants listed in Table 4-113 shall not be used within or adjacent to a Conservation Area. This list may be amended from time to time through a Minor Amendment with Wildlife Agency Concurrence.*

The proposed project will not require any landscaping or planting.

## Barriers

*Land uses adjacent to or within a Conservation Area shall incorporate barriers in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping in a Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls and/or signage.*

The proposed project would not change any land uses in the area other than to replace an earthen levee with a permanent structure along the eastern bank of the Whitewater River.

## Grading/Land Development

*Manufactured slopes associated with site Development shall not extend into adjacent land in a Conservation Area.*

The proposed project footprint will be limited to the eastern bank of the Whitewater River and will generally follow the existing earthen levee that is failing. The footprint has been minimized to the maximum extent possible to allow for the protection of the Preserve while satisfying the regulations of the CVMSHCP.

## Fluvial Sand Transport

“Fluvial sand transport” refers to the process by which sand and sediment particles are pushed downstream along a floodplain by the movement of water. In the Coachella Valley, fluvial sand transport begins in the mountains, where streams and rivers push sediment down into the valley. On the valley floor, continued occasional water flow will maintain fluvial transport, but high winds will also pick up sediment and carry it (Aeolian transport) (Exhibit 8, *CVMSHCP Sand Transport Area*). In accordance with Section 4.4 of the MSHCP, the following additional measure would be required for the proposed project to remain in compliance with the MSHCP. The following text is taken directly from Section 4.4:

*Activities, including O&M of facilities and construction of permitted new projects, in fluvial sand transport areas in the Cabazon, Stubbe and Cottonwood Canyons, Snow Creek/Windy Point, Whitewater Canyon, Whitewater Floodplain, Upper Mission Creek/Big Morongo Canyon, Mission Creek/Morongo Wash, Willow Hole, Long Canyon, Edom Hill, Thousand Palms, West Deception Canyon, and Indio Hills/Joshua Tree National Park Linkage Conservation Areas will be conducted in a manner to maintain the fluvial sand transport capacity of the system.*

A sediment transport study was conducted to verify if the loss of the current levee system would change the current pattern of sand transport associated with the Whitewater River. The current sand dune habitats in the Coachella Valley are adapted to the current pattern of sand transport along the Whitewater River. Modification of this pattern could also affect downstream areas in the Whitewater River floodplain that provides core habitat for many species associated with sand dune habitats.

The hydrologic analysis performed was intended to serve as the hydrologic basis to be used in the planning and design of the proposed flood protection improvements, including the determination of impacts, mitigation requirements, and engineering constraints. The hydrologic basis supports the analysis of debris yield, hydraulics, sediment transport, and scour through model development and simulation as well as the use of spreadsheet calculations. This analysis was performed by Q3 Consulting in June 2020.

The hydrologic basis was formulated being mindful of the following goals:

- Conveyance of floodwaters along the edge conditions and near vicinity of the proposed improvements as it relates to stream stability, flood and erosion protection, and consequences to adjacent properties and existing infrastructure
- Increased runoff volume and/or flow redistribution attributed to the improvements

The hydrologic objectives focused on the determination of the following for the portion of the Whitewater River watershed that is relevant to the Whitewater Preserve Area:

- *Regional flood frequency curves.* A regional flood frequency analysis was performed based on most current available streamflow data to determine peak flow rates using stochastic methods based on recorded observations to provide a metric for evaluating the reasonableness of peak flow rates computed based on deterministic methods
- *Regional peak flow rates and flood hydrographs.* Peak flow rates and flood hydrographs were determined for selected combinations of frequencies and durations to support the development, simulation, and analysis of steady- and unsteady-flow hydraulic models and supplementary calculations, which contribute to the basis of design formulated for the proposed levee improvements.

The following general approach and assumptions were employed:

- Flood frequency analysis were performed based on the method of *L*-moments (Hosking and Wallis, 1997)
- The Riverside County Hydrology Manual (RCHM; RCFCWCD, 1978) Synthetic Unit Hydrograph Method (SUHM) was used as the framework for the deterministic computation of peak flow rates and flood hydrographs
- The relevant Whitewater River watershed was identified as the area tributary to the historic USGS streamflow gage site at Whitewater (USGS ID 10256000), located between Interstate 10 and the Whitewater Preserve Area
- The 50-, 20-, 10-, 2-, 1-, 0.5, and 0.2-percent annual chance storm events were evaluated
- Parameter development was performed using a combination of GIS and spreadsheet applications

The project is a flood control levee that would be constructed for the specific purpose of protecting Whitewater Preserve from future flood flows. Levees, by definition, alter the course of water flows for the purpose of protecting natural or manmade resources such as the preserve. However, the project is a replacement levee that would not change future water flows but rather improve upon the protection provided by the existing levee at the site. In addition, there is not potential for substantial erosion or siltation on- or off-site due to the fact that a levee currently exists on the site. The project will not obstruct fluvial sand transport or obstruct natural watercourses, and the rate of flow and sediment transport will not be impeded.

## **Regulatory Setting**

Special status habitats are vegetation types, associations, or sub-associations that support concentrations of special status plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g., U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e., California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, CNPS, The Wildlife Society), and the scientific community. The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds); and
- California Department Fish and Wildlife (riparian areas and other waters of the State, state listed species).

### *United States Army Corps of Engineers*

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material or otherwise adversely modify wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill or adverse modification of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving creation or enhancement of similar habitats.

### *Regional Water Quality Control Board*

The State Water Resources Control Board (SWRCB) and the local Central Coast Regional Water Quality Control Board (RWQCB) have jurisdiction over “waters of the State,” pursuant to the Porter- Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The Central Coast RWQCB enforces actions under this general order for isolated waters not subject to federal jurisdiction and is also

responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

#### *United States Fish and Wildlife Service*

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703- 711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take” of any federally listed threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

#### *California Department of Fish and Wildlife*

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened, endangered or fully protected species. Take under CESA is restricted to direct mortality of a listed species and does not prohibit indirect harm by way of habitat modification. The CDFW also prohibits take for species designated as Fully Protected under the Code.

California Fish and Game Code sections 3503, 3503.5, and 3511 describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species.

Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant.

Perennial and intermittent streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the stream zone (which could extend

to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

#### *Coachella Valley Multiple Species Habitat Conservation Plan*

A Multiple Species Habitat Conservation Plan (Plan) was prepared for the entire Coachella Valley and surrounding mountains to address current and potential future state and federal Endangered Species Act issues in the Plan Area. The Plan balances environmental protection and economic development objectives in the Plan Area and simplifies compliance with endangered species related laws. The Plan is intended to satisfy the legal requirements for the issuance of Permits that will allow the Take of species covered by the Plan in the course of otherwise lawful activities. The Plan will, to the maximum extent practicable, minimize and mitigate the impacts of the Taking and provide for Conservation of the Covered Species. The Plan is intended to preserve biological diversity as well as maintain the quality of life within the Coachella Valley and surrounding mountains by conserving species and their associated habitats and coordinating, streamlining and planning Development.

The Plan was formally adopted in 2008 and an Implementing Agreement (IA) was issued by and between the Coachella Valley Association of Governments, Coachella Valley Conservation Commission, County of Riverside, Riverside County Flood Control and Water Conservation District, Riverside County Waste Resources Management District, Riverside County Regional Parks and Open Space District, the cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage; Coachella Valley Water District, Imperial Irrigation District, Mission Springs Water District, Coachella Valley Mountains Conservancy, California Department of Fish and Wildlife, California Department of Transportation, California Department of Parks and Recreation, and United States Fish and Wildlife Service.

The approval of the Plan and execution of the IA allows signatories of the IA to issue “take” authorizations for all species covered by the Plan, including state- and federal-listed species as well as other identified sensitive species and/or their habitats. Each city or local jurisdiction will impose a Development Mitigation Fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), CESA, and FESA will be granted. Payment of the mitigation fee and compliance with the requirements of the Plan are intended to provide full mitigation under CEQA, NEPA, CESA, and FESA for impacts to the species and habitats covered by the MSHCP pursuant to agreements with the USFWS, the CDFW, and/or any other appropriate participating regulatory agencies and as set forth in the IA for the MSHCP.

a) Would the project have a substantial adverse effect, either directly or through habitat modification, 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 Game or U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**(a) Less than Significant Impact with Mitigation Incorporated.**

Ninety-two (92) special-status wildlife species have been reported by the CNDDDB in the White Water, Desert Hot Springs, Morongo Valley, and Catclaw Flat USGS 7.5-minute quadrangles. Costa's hummingbird, southwestern willow flycatcher, American peregrine falcon, yellow-breasted chat, summer tanager, vermilion flycatcher, two-striped garter snake, and least Bell's vireo (*Vireo bellii pusillus*) were the only special-status wildlife species observed within the project site during the field investigations. Based on habitat requirements for specific special-status wildlife species and the availability and quality of habitats needed by each species, the undeveloped portions of the project site were determined to have a high potential to provide suitable habitat for great blue heron (*Ardea herodias*), loggerhead shrike (*Lanius ludovicianus*), and yellow warbler (*Setophaga petechia*); and a moderate potential to provide suitable habitat for Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), California glossy snake (*Arizona elegans occidentalis*), snowy egret (*Egretta thula*), little willow flycatcher (*Empidonax traillii brewsteri*), prairie falcon (*Falco mexicanus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). All remaining special-status wildlife species have a low potential to occur or are presumed to be absent from the project site based on habitat requirements, availability/quality of habitat needed by each species, and known distributions.

No special-status plant species were observed on-site during the 2020 focused surveys.

**BIO-1:** Construction activities involving vegetation removal shall be conducted between September 1 and January 31. If construction occurs inside the peak nesting season (between February 1 and August 31), a pre-construction survey by a qualified Biologist shall be conducted within 72 hours prior to construction activities to identify any active nesting locations. If the Biologist does not find any active nests, the construction work shall be allowed to proceed. The biologist conducting the clearance survey shall document a negative survey with a report indicating that no impacts to active avian nests shall occur.

If the Biologist finds an active nest on the project site and determines that the nest may be impacted, the Biologist shall delineate an appropriate buffer zone around the nest. The size of the buffer shall be determined by the Biologist and shall be based on the nesting species, its sensitivity to disturbance, expected types of disturbance, and location in relation to the construction activities. These buffers are typically 300 feet from the nests of non-listed species and 500 feet from the nests of raptors and listed species. Any active nests observed during the survey shall be mapped on an aerial photograph. Only construction activities (if any) that have been approved by a Biological Monitor shall take place within the buffer zone until the nest is vacated. The Biologist shall serve as a Construction Monitor when construction activities take place near active nest areas to ensure that no inadvertent impacts



on these nests occur. Results of the pre-construction survey and any subsequent monitoring shall be provided to the Property Owner/Developer and the City. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds.

**BIO-2:** A qualified biologist shall monitor all initial vegetation clearing and ground disturbance activities throughout the project site. If any special status species are observed during these activities, work shall be stopped until the animal can be relocated to the closest suitable habitat out of harm's way or until the animal has left the impact area on its own.

**BIO-3:** A Worker Environmental Awareness Program shall be conducted prior to the start of construction, to educate personnel about the existing on-site and surrounding biological resources, environmental laws and regulations governing those resources that must be complied with, and measures that must be implemented to protect these resources focusing on the avoidance and minimization of impacts to nesting birds during construction.

b) Would the project have a substantial adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input checked="" type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input type="checkbox"/>
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**(b) Less than Significant Impact with Mitigation Incorporated.**

Habitats are considered to be of special concern based on: (1) federal, State, or local laws regulating their development; (2) limited distributions; and/or (3) support the habitat requirements of special-status plants or animals. State and/or federal jurisdictional features (i.e., lakes, rivers, streams, ephemeral drainages, jurisdictional streambed and bank, and wetlands) are also considered natural communities of special concern.

Four (4) habitats and natural communities were documented within the Survey Area, which include jurisdictional waters (refer to Checklist Response (c)), for a discussion of potential Project impacts to jurisdictional waters), willow scrub, alluvial scrub, and Coachella Valley milk-vetch Critical Habitat.

*Alluvial Scrub*

The alluvial scrub plant community is found on the western portion of the Survey Area in association with the active channel of the Whitewater River. The active channel of the Whitewater River flows through this plant community, and this plant community is subject to flooding events following significant storm events. This plant community is characterized by braided channels of intermittent streams and rivers. Substrates consist of open cobble with sandy soil deposits. Implementation of mitigation measure BIO-6 would reduce this potential impact to a less than significant level.



### *Willow Scrub*

The willow scrub plant community was observed on the eastern and northwestern portions of the Survey Area. Implementation of mitigation measure BIO-6 would reduce this potential impact to a less than significant level.

### *Coachella Valley Milk-Vetch Critical Habitat*

The northern portion of the proposed project footprint is located within designated Critical Habitat for Coachella Valley milk-vetch. The issuance of a CWA Section 404 permit for impacts to the Whitewater River will trigger the need for the Corps to consult with the USFWS under Section 7 of the FESA for loss or adverse modification to Critical Habitat. However, consistency with the CVMSHCP will help guide the Section 7 process. It should be noted that no Coachella Valley milk-vetch were observed on-site during the 2020 special-status plant species focused survey. Implementation of mitigation measures BIO-4 and BIO-6 would reduce this potential impact to a less than significant level.

**BIO-4:** The Corps will need to consult with the USFWS under Section 7 of the FESA for loss or adverse modification to Critical Habitat. Consistency with the CVMSHCP will help guide the Section 7 process.

### *Jurisdictional Waters*

The *Jurisdictional Delineation* report identified both State and federal jurisdictional areas within and adjacent to the proposed Project. No vernal pools, clay or restrictive soils were found on the site.

The Project footprint was designed to avoid impacts to riparian habitats to the maximum extent possible by staying within the footprint of the existing earthen levee. Project site Implementation of the project will result in approximately 0.42 acre of permanent and 0.56 acre of temporary impacts to riparian habitat within the Whitewater River. Mitigation measure BIO-6 through mitigation measure BIO-11 would minimize temporary impacts to riparian habitats.

**BIO-5:** Based on current design plans, the Project will result in approximately 0.42 acre of permanent and 0.56 acre of temporary impacts to U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB) non-wetland waters, and a California Department of Fish and Wildlife (CDFW) jurisdictional streambed. Permanent impacts to regulated jurisdictional waters will be mitigated at a ratio of 3:1 and temporary impacts will be mitigated at a ratio of 2:1, for a total of 2.38 acres of compensatory mitigation to satisfy requirements related to impacts to waters subject to the jurisdiction of the Corps, RWQCB, and CDFW. Compensatory mitigation will be implemented through restoration/enhancement of a total of 2.38 acres of on-site habitat. A Habitat Mitigation and Monitoring Plan (HMMP) will need to be prepared and approved by prior to initiating Project construction – the HMMP will provide detailed direction regarding implementation and maintenance of the referenced compensatory mitigation as agreed upon by the Corps, RWQCB, and CDFW.

In addition, the habitats that would be temporarily impacted by Project construction-related activities would be restored to current conditions as soon as possible after construction is completed. All plant species installed within the temporarily disturbed areas shall include only local California native seeds and shall be typical of the existing native plant species present in the areas within and adjacent to the

Project site. It is recommended that plant material be installed between October 1 and April 30 to maximize the benefits of the winter rainy season.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input checked="" type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input type="checkbox"/>
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**(c) Less than Significant Impact with Mitigation Incorporated.**

A Jurisdictional Delineation was conducted by ELMT Consulting on January 7, 2020 to delineate the jurisdictional limits of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife's (CDFW) within the proposed Survey Area.

One intermittent/perennial drainage feature (Whitewater River) runs north to south along the western boundary of the Survey Area. The Whitewater River possesses a surface hydrologic connection downstream to the Salton Sea, a Traditional Navigable Water, and will qualify as a water of the United States subject to Corps jurisdiction under Section 404 of the CWA. In addition, the Whitewater River will qualify as a "Waters of the State" under the regulatory authority of the Regional Board, and jurisdictional streambed under the regulatory authority of CDFW.

Project site Implementation of the project will result in approximately 0.42 acre of permanent and 0.56 acre of temporary impacts to riparian habitat within the Whitewater River. Implementation of mitigation measure BIO-5 would reduce this potential impact to a less than significant level.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented to address all construction-related activities, equipment, and materials that have the potential to impact water quality. The SWPPP would identify the sources of pollutants that may affect the quality of stormwater and include the construction site specific Best Management Practices (BMPs) to control pollutants such as sediment control, catch basin inlet protection, construction materials management and non-stormwater. BMPs would be implemented to the maximum extent practicable, meeting requirements in the city and/or county ordinances and any subsequent permits. All appropriate BMPs would be utilized during construction and maintenance to ensure that no indirect impacts occur to the downstream system. Fiber rolls (coconut or straw waddles) would be used to temporarily divert the flows. Implementation of mitigation measure BIO-6 through mitigation measure BIO-11 would further reduce impacts to less than significant.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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**(d) No Impact.**

Although the development of the proposed permanent flood control structure may result in the loss of natural habitats, project activities are not expected to eliminate wildlife movement opportunities or prevent the surrounding habitat from continuing to function as a wildlife corridor. Although the proposed project may result in a temporal loss of wildlife movement opportunities during construction, the completion of the project will provide long-term protection of wildlife movement opportunities along the Whitewater River.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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**e) No Impact.**

Implementation of the proposed project will not conflict with any local policies or ordinances protecting biological resources.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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**f) No Impact.**

The Project was reviewed to determine consistency with the CVMSHCP. The project site is located within the boundaries of the CVMSHCP Area, specifically within the Whitewater Canyon Conservation Area.

The proposed project is not listed as a planned "Covered Activity" under the published CVMSHCP but is still considered to be a current Covered Activity pursuant to Section 7.3 of the CVMSHCP. According to Section 7.3 of the CVMSHCP, implementation of the Plan will provide permits for covered species for Covered Activities within conservation areas if: *"Development and the associated ground disturbance, consistent with the Conservation Goals and Conservation Objectives within Conservation*

*Areas and Species Conservation Goals and Objectives; and including the construction, operation, and maintenance of new flood control facilities and local roadways which are either: (1) approved as part of a development proposal or (2) dedicated, or offered for dedication, for public use, are Covered Activities."*

As a Covered Activity located within a designated conservation area, construction of the proposed project is subject to the applicable avoidance, minimization, and mitigation measures as described in Section 4.4 of the CVMSHCP. In accordance with the CVMSHCP required measures for the Whitewater Canyon Conservation Area, activities and projects involving water diversions in modeled arroyo toad habitat are not considered Covered Activities if arroyo toad is present. If arroyo toad is present, take authorization for such activities will requires a Minor Amendment to the CVMSHCP with Wildlife Agency concurrence.

**BIO-6:** The Project has been designed to minimize direct construction impacts to riparian plant communities by staying within previously disturbed areas. Avoidance and minimization measures shall be included in the Project specifications for implementation during construction to further reduce the potential for any temporary, indirect impacts to occur to these communities during construction activities, including the following:

- Trash and other debris shall be properly disposed of and not left on-site in areas where it could fall into protected habitat.
- Project boundaries shall be clearly marked with fencing, or other suitable type of marking material as directed by a qualified biologist. Vehicles and other Project construction personnel shall stay within these delineated Project boundaries.
- Sensitive areas (i.e., jurisdictional drainage features, willow scrub in proximity to the construction footprint shall be clearly marked, with fencing or other suitable type of marking material as directed by a qualified biologist, for awareness and avoidance.
- Refueling, washing, or other vehicular maintenance activities shall occur a minimum of 100 feet away from riparian areas, including southern cottonwood willow riparian forest habitat.
- Equipment would be maintained and checked at least on a daily basis for leaks.
- All vehicle leaks or other hazardous material leaks shall be contained and cleaned up immediately. All contaminated soil shall be removed from the site and disposed of properly.

**BIO-7:** During soil excavation, grading, or other subsurface disturbance within 100 feet of riparian habitat on-site, the construction contractor shall supervise provision and maintenance of all standard dust control BMPs to reduce fugitive dust emissions, including but not limited to the following actions:

- Water any exposed soil areas a minimum of twice per day, or as allowed under any imposed drought restrictions. On windy days or when fugitive dust can be observed leaving the construction site, additional water shall be applied at a frequency to be determined by the on-site construction superintendent.
- Pave, periodically water, or apply chemical stabilizer to construction access/egress points.

- Minimize the amount of area disturbed by clearing, grading, earthmoving, or excavation operations at all times.
- Operate all vehicles on graded areas at speeds less than 15 miles per hour.
- Cover all stockpiles that would not be utilized within three days with plastic or equivalent material, to be determined by the on-site construction superintendent, or spray them with a non-toxic chemical stabilizer.

**BIO-8:** The on-site construction contractor shall implement the following measures to minimize short-term noise levels caused by construction activities. Measures to reduce construction noise shall be included in contractor specifications and include, but not be limited to, the following:

- Properly outfit and maintain construction equipment with manufacturer-recommended noise-reduction devices to minimize construction-generated noise.
- Operate all diesel equipment with closed engine doors and equip with factory-recommended mufflers.
- Use electrical power, when feasible, to operate air compressors and similar power tools.
- Employ additional noise attenuation techniques, as needed, to reduce excessive noise levels within conserved Riparian/Riverine Habitat on-site, such as placement of temporary sound barriers or sound blankets at the top of slope adjacent to these areas.
- Locate construction staging areas at least 100 feet from jurisdictional areas.

**BIO-9:** To address potential short-term impacts to water quality within the on-site drainages from construction runoff that may carry storm water pollutants, a SWPPP shall be implemented by the construction contractor as required by the California General Construction Storm Water Permit pursuant to the RWQCB regulations. The SWPPP shall identify BMPs related to the control of toxic substances, including construction fuels, oils, and other liquids. These BMPs would be implemented by the construction contractor prior to the start of any ground clearing activity, shall be subject to periodic inspections by the County and the Project's hydrological consultant, shall be maintained throughout the construction period and remain in place until all landscape and permanent BMPs are in place. BMPs shall be monitored and repaired if necessary, to ensure maximum erosion, sediment, and pollution control.

- The use of erosion control materials potentially harmful to fish and wildlife species, such as mono-filament netting (erosion control matting) or similar material, within and adjacent to CDFW jurisdictional areas shall be prohibited.

- All fiber rolls,<sup>2</sup> straw waddles, and/or hay bales utilized within and adjacent to the Project site shall be free of non-native plant materials.
- Permittee shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance.
- Water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities shall not be allowed to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows.
- Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it would impact streambed habitat and aquatic or riparian vegetation.
- Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from Project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, shall be removed immediately.
- No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.
- No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high-water mark of any lake, streambed, or flowing stream.

**BIO-10:** The following measures shall also be incorporated into the construction documents and specifications, and implemented by the contractor, to avoid potential construction-related impacts to conserved riparian/riverine habitat outside of the approved disturbance limits:

- Construction worker training shall be provided by a qualified biologist at the first on-site construction meeting;
- Project boundaries shall be clearly marked and or signs shall be erected near the top of slope adjacent to conserved riparian habitat to prevent accidental/unauthorized intrusions during construction; and

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<sup>2</sup> Fiber rolls or erosion control mesh shall be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread.



- Staging areas for storage of materials and heavy equipment, and for fueling, cleaning, or maintenance of construction vehicles or equipment, shall be prohibited within 20 feet from the top of slope adjacent to conserved riparian habitat.

**BIO-11:** The Project shall incorporate special edge treatments to minimize edge effects by providing a safe transition between developed areas and conserved riparian habitat, and which would be compatible with Project operation and the protection and sustainability of conserved areas. The following special edge treatments are applicable to the Project, and shall be implemented:

- a) The Project is required to stage construction vehicles and equipment outside of the limits of California Department of Fish and Wildlife jurisdictional streambed and riparian habitat to the maximum feasible distance;
- b) Construction-related noise shall not exceed residential noise standards as set forth in the County Noise Ordinance; and
- c) Any manufactured slopes shall be kept within the boundaries of the Project footprint and not encroach into California Department of Fish and Wildlife (CDFW) jurisdictional streambed limits beyond the limits for which permit approval has been obtained from CDFW for the Project.

#### 4.3.5 Cultural Resources

A Cultural Resources Assessment for the proposed Project was performed by BCR Consulting in June of 2020 and is attached as Appendix C.

Cultural resources include archaeological sites, buildings and other kinds of structures, historic districts, cultural landscapes, and resources important to specific ethnic groups. Archaeological sites represent the material remains of human occupation and activity either prior to European settlement (prehistoric sites) or after the arrival of Europeans (historical sites). The historic "built environment" includes structures used for habitation, work, recreation, education and religious worship, and may be represented by houses, factories, office buildings, schools, churches, museums, hospitals, bridges and other kinds of structures. An historic district is any "geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history" (36 CFR 60.3). The National Park Service defines a cultural landscape as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values".

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) Less Than Significant Impact.** During the field survey, BCR Consulting Archaeological Crew Chief Nicholas Shepetuk, B.A., and Staff Archaeologist Damien Tietjen, B.A. completed a systematic pedestrian field survey of the project alignment and a 100-foot buffer at 15-meter transect intervals. During the field survey, archaeologists identified a partial levee composed of stabilized slopes and berms that had been fortified with debris and alluvium for flood control. Much of the levee had been washed away. Although some form of flood control has been in place since 1939, topographic maps indicate that the portions within the project footprint were installed after 1955. A trout pond and feeder pipes just to the east (outside) of the 100-foot buffer were also installed after 1955.

The Eastern Information Center (EIC; the repository that houses cultural resources records for the project area) closed to consultants in March 2020 due to Covid-19 restrictions. Although the EIC has reportedly begun processing records search requests internally, we have not received results for any requests since March and have therefore exhausted all means of research for the project site. Records search results for this report are summarized from a previous adjacent study provided by the Coachella Valley Mountains Conservancy (Pritchard Parker et al. 2007:14-15). This included a review of all prerecorded historic-period and prehistoric cultural resources within a quarter mile of the project site, as well as a review of known cultural resources surveys and excavation reports generated from projects located in the vicinity. In addition, a review was conducted of the National Register of Historic Places (National Register), the California Register, and documents and inventories from the California Office of Historic Preservation (OHP) including the lists of California

Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

Based on the Cultural Resources Report detailed above having determined that no resources at the project site would qualify as historic under CEQA, impacts would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) Less Than Significant with Mitigation Incorporated.** Construction and excavation associated with the demolition of the existing levee and the construction of the replacement levee has the potential to unearth archaeological resources in the project area. Although no specific resources in the project area have been identified through records searches, compliance with Mitigation Measure CUL-1 will ensure that impacts are less than significant.

**CUL-1:** Archaeological Monitoring: For adequate coverage and the protection of potentially significant buried resources, a qualified archaeologist shall be retained by the applicant during ground-disturbing activities into native soils. The project archaeologist shall have the authority to halt any activities adversely impacting potentially significant resources. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed, and the treatment of discovered Native American remains shall comply with State codes and regulations of the Native American Heritage Commission (NAHC). Any significant archaeological resources found shall be preserved as determined necessary by the project archaeologist and offered to a qualified repository for curation. Any resulting reports will be submitted to the South Central Coastal Information Center at California State University, Fullerton.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) Less than Significant with Mitigation Incorporated.** Although no known human remains would be expected to be unearthed during construction and excavation associated with the proposed project due to its location in an uninhabited area, it is possible that such remains could be unearthed. However, compliance with Mitigation Measure CUL-2 would ensure that impacts are less than significant.

**CUL-2:** Human Remains: In the event that human remains are uncovered during grading or other excavation activities at the Project site, work will be halted, and the Riverside County Coroner will be contact to come to the Project site.

#### 4.3.6 Energy

This section describes the potential energy usage effects from implementation of the proposed Project for both construction activities as well as long-term operations.

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- a) **Less than Significant Impact.** The proposed Project involves construction activities typically associated with infrastructure replacement projects, in this case demolition of the existing levee, truck trips associated with demolition and subsequent construction, and a less than significant ongoing energy requirement associated with operations. Because the construction activities proposed would be of a limited nature in terms of duration and extent, no unnecessary consumption of energy resources would occur in the construction phase. As noted, the existence of the replacement levee would require minimal maintenance as it is functionally and earthen landscape feature similar to what is already in place at the project site. As a result, operational impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- b) **Less than Significant Impact.** Energy consumption from new projects that do not include residential uses, such as the proposed Project, are primarily controlled by Title 24, Part 11 California Green Building Standards Code (CalGreen). Because of the limited nature of construction in terms of both duration and extent, as well as the fact that construction would be typical for infrastructure projects and no excess energy would be consumed, construction impacts would not be in conflict with any plan regarding energy efficiency. Operational energy use would be minimal due to the fact that the proposed Project is an earthen levee. Impacts would be less than significant.

#### **4.3.7      Geology and Soils**

Petra Geosciences performed a Geotechnical Investigation for the Project in July 2020 (Appendix D).

The site is located in Whitewater River area of the upper Coachella Valley at the juncture of three natural geomorphic provinces of California, the Transverse Ranges, the Peninsular Ranges, and the Colorado Desert. The Coachella Valley lies within the northern portion of the Salton Trough. This large northwest-trending structural depression extends approximately 180 miles from San Geronimo Pass to the Gulf of California. Part of this basin, including the Salton Sea, lies below sea level and has progressively been filling with sediments eroded from local bounding mountain ranges, deposits from the Colorado River, and by incursions by the Gulf of California since at least the late-Miocene Epoch. Deposits within the Salton Trough are estimated to be over two to five miles thick (Kohler and Fuis, 1986; Fuis and Kohler, 1984; Biehler, et. al., 1964). It is considered the dominant feature of the Colorado Desert Geomorphic Province. It is well known for its exposures of the San Andreas Fault and related fault systems that form the margin between the Pacific and North American Plates.

The western end of the San Geronimo Pass is somewhat elusive in definition. Already several miles wide at Beaumont, it loses its identity as it merges with the Beaumont Upland. The Beaumont Upland, which extends almost to Redlands, is an alluvial plain, or terrace-like structure built up by streams carrying sand and gravel south from the eastern San Bernardino Mountains. This old erosion surface is a flat, smooth, gently sloping plain into which broad, steep-walled, flat-floored arroyos have been cut to a depth more than 50 feet below the surface level. Interstate 10 traverses the upland surface, dipping in several places with the gullies. Also visible from the freeway, recent stream rejuvenation has incised new gullies about 10 feet below this surface. The eastern end of the pass enters the Coachella Valley at Whitewater Canyon. It does so as a well-formed gradual slope and is about 1.5 miles wide measured between Windy Point and Whitewater Hill.

The San Bernardino Mountains are an elevated and faulted block, thrust upward from a region of low relief to their present height during Pleistocene time, about two million years ago. Inland from the ridges forming the valley edge, Joshua Tree National Monument occupies most of the interior section. Structurally, the flat upland plateau in the western section of the Little San Bernardino Mountains, including most of Joshua Tree National Park, is a tilted block uplifted uniformly between the Mission Creek fault and the Morongo Valley fault. The northern margin of the block lies roughly parallel to Twentynine Palms Highway. The Little San Bernardino Mountains are considerably lower in elevation than either the Santa Rosa Mountains or the San Jacinto Mountains to the west. The most striking aspect of the mountains is the uniquely flat and uniform crestline. This is apparent from any viewpoint in Palm Springs or Palm Desert. This is the western margin of an ancient desert upland; an old erosion surface averaging 4,000 feet in elevation which is discussed in the following section. The eastern mountains are made up of the oldest rocks in the area, the Chuckwalla Complex of metamorphic rocks. This assemblage is of Precambrian age, about 1.7 billion years old.

Whitewater Canyon is a closed canyon with access only at its mouth. The east side of the canyon is an abrupt wall, with little vegetation. The western side is more sloping, with considerable vegetation. The closed northern end of the canyon is dominated by cliffs of bare, brown rock. The west side of the canyon displays the darker rocks of the ancient metamorphic Chuckwalla Complex. Rocks of the east wall are the younger Miocene Coachella Funglomerate overlain by the early Pliocene Imperial Formation. A splendid exposure of the funglomerate can be observed at the terminus of the road adjacent to the preserve center

about 5 miles from the mouth of the canyon. The Whitewater River channel, containing abundant whitish boulders in its stream bed, generally lies close to the east side of the canyon. The Colorado Aqueduct crosses the canyon near its mouth, and here for part of the year, excess water is diverted from the aqueduct for recharge of the groundwater system. The stream crosses the valley to the spreading ponds of the Coachella Aquifer. About 1.5 miles into the canyon, the road crosses the Banning fault, considered by some to be the main strand of the San Andreas fault. The fault trace is marked by lush riparian vegetation in the stream channel, contrasting sharply with the stark canyon walls. Whitewater Canyon is the only remaining unspoiled canyon in the Coachella Valley.

#### *Local Geology and Subsurface Soil Conditions*

A regional geologic map of the subject property and vicinity maps the majority of the site as being underlain by young alluvial deposits exist in the main channel of the Whitewater River where the base of the levee will be founded. This layer is sitting on the top of older alluvial fan of San Geronio Pass. The stream channel alluvial materials are described as un-indurated and undissected gravelly cobbly sand with occasional boulders along stream valley.

Where encountered in our test pits, earth materials onsite consisted of artificial fill which are similar in character to the young alluvium. It is our understanding that this material occasionally derived from the stream deposits and stocked on the riverbank. As far as we know, this area was constructed and reconstructed several times in the last century with the most recent likely being in the 1980's. Since the fill material and stream channel alluvial are the same, fill/native soils contact and, therefore, fill thickness was not detectable. In addition, excavation into the discussed materials was hard due to the existence of large size boulders (up to 4 feet). The fill materials encountered within the test pits consisted typically of dry to slightly moist, loose to medium-dense fine- to coarse-grained sands with gravel and numerous amounts of cobbles and boulders. Laboratory testing of representative samples of the finer matrix materials yielded dry densities of 123.3 pounds per cubic foot, and moisture contents ranging from 3.0 percent.

#### *Faulting*

Based on our review of published and unpublished geotechnical maps and literature pertaining to site geology, no active or potentially active faults are known to project through the site and the site does not lie within the bounds of an "Earthquake Fault Zone" as defined by the State of California in the Alquist-Priolo (AP) Earthquake Fault Hazard Zoning Act (Whitewater-R95 Quadrangle from Bryant and Hart, 2007). State of California Seismic Hazard Zone maps created for this area also indicate no earthquake fault zones within or adjacent to the property (CGS, 1995). However, according to the Riverside County Parcel Report, the site is located within the county fault zone with high sensitivity. (Riverside County, 2014, 2019a).

As the geology map shown, the Whitewater Fault which was reported in Riverside County integrated project source by California Division of Mines and Geology (CDMG, 1980) and Dibblee (1981), lies within the east canyon wall, almost parallel to the canyon, and juxtaposes old alluvium against Coachella fanglomerate of late Miocene age. This fault was first mapped by Allen (1954). As he described, it is a relatively minor but continuous fault which separates crystalline rocks, Coachella fanglomerate, and quaternary gravels along the east wall of lower Whitewater Canyon. In 1957, Allen shows the fault concealed beneath Cabazon fanglomerate and it is also concealed by recent alluvium where it crosses the



Whitewater River. Displacement on this steeply to moderately east-dipping fault is relatively up on the east. The Whitewater Fault is well-expressed by aligned drainages and saddles; however, this expression is principally fault line geomorphology and there is no expression of fault within the Holocene alluvium. According to State of California fault definitions, an “active” fault has had displacement within the Holocene epoch (i.e., the last 11,000 years). Based on the fault evaluation report No. FER-235 (CDMG, 1994), since there is no indication of Holocene activity along the Whitewater Fault, this fault is inactive.

However, it should be noted that according to the USGS Unified Hazard Tool website and/or 2010 CGS Fault Activity Map of California, the nearest active fault (design fault for the site) is the South Branch of the San Andreas Fault zone (San Bernardino Mountains section), which is located approximately  $3.48 \pm$  miles on both north and south side of the site. The subject site is located at a distance of less than {6.25 miles (10 km)} from the surface projection of this fault system, which is capable of producing magnitude {7} or larger events with a slip rate along the fault greater than 0.04 inch per year. As such, the site should be considered as a Near-Fault Site in accordance with ASCE 7-16, Section 11.4.1.

In spite of the active tectonic regime, earthquakes in the Whitewater Canyon region within historical times (i.e., the past couple hundred years) have been infrequent and of small magnitude. A listing of historical earthquakes published by the National Earthquake Information Center (2006) indicates that the largest earthquake occurring within a radius of approximately 62 miles (100 kilometers) of the site was the Magnitude 7.3 Landers earthquake in 1992. This event, along with the associated aftershocks, occurred approximately 31 miles northeast of the subject property. The closest documented earthquake equal to or greater than magnitude 6.0, was a magnitude 6.0 Morongo Valley earthquake that occurred approximately 3.1 miles northeast of the site in 1986.

Some of the more significant historic seismic events in the recent 100 years with magnitude of 6 or greater and within 100 kilometers of subject site are listed in Table 1, along with the corresponding approximate epicentral distances to the subject site and the calculated moment magnitude based on various published earthquake databases.

Date	Location	Approximate Distance from Site (km)	Magnitude
1999	16km SW of Ludlow, CA	77	7.1
1992	7km SSE of Big Bear City, CA	29	6.3
1992	Landers, California Earthquake	31	7.3
1992	17km NNE of Thousand Palms, California	32	6.1
1986	6km SSW of Morongo Valley, CA	5	6.0
1954	12km W of Salton City, CA	94	6.4
1948	16km E of Desert Hot Springs, CA	30	6.0
1937	16km WSW of Oasis, CA	76	6.0
1918	Southern California	41	6.8

Based on our review of aerial photographs for the site and vicinity, photo lineaments were not observed traversing the site. While fault rupture would most likely occur along previously established fault traces, fault rupture could occur at other locations. However, as discussed above, the potential for active fault rupture at the site is considered to be very low.

#### Nearby Seismic Sources

Published geologic maps and literature indicate that the site lies within 50 miles of a number of significant active and potentially active faults (including the various segments of the San Andreas Fault zone) that are considered capable of generating strong ground motion at the subject site. The names and locations of these faults relative to the subject property are provided in Table 2 of Appendix D.

As indicated above, the San Geronimo Pass-Garnet Hill and Mill Creek segments of the San Andreas Fault zone are located on south and north of the subject site, respectively. This fault is among the most active in California and has accordingly been placed within a State of California Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007; CGS 2015). According to State of California fault definitions, an “active” fault has had displacement within the Holocene epoch (i.e., the last 11,000 years). A “potentially active” fault is a fault that does not have evidence of movement within the last 11,000 years, but has moved within Quaternary period, the last 2.6 million years. “Potentially active” faults are not placed within Alquist-Priolo Earthquake Fault Zones, but are considered when conducting siting studies for such critical structures as dams and nuclear power plants, etc.

It should be noted that, based on our research and evaluation, any number of faults within the Salton Sea region and the Colorado Desert Geomorphic Province could generate severe site ground motions. The major contributor to the deterministic minimum component of the ground motion models, however, is San Bernardino segment of San Andreas Fault. Riverside County, however, has identified the San Jacinto Valley segment of the San Jacinto Fault zone with a higher probability (43 percent vs. 22 percent) of an earthquake occurring on a fault segment in the next 30 years than the Coachella segment of the San Andreas Fault zone (Riverside County, 2014).

a) i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) i) **Less than Significant Impact.** As noted in the Geotechnical Report prepared for the Project site, the area is seismically active and susceptible to the effects of seismic activity include rupture of earthquake faults. However, CEQA requires an analysis of a project’s impacts on the environment, not the environment’s potential impacts on a project. Because the construction of a replacement

levee does not have the potential to increase the likelihood of geologic phenomena such as surface rupture, and the proposed land use is of a similar nature to the current land use at the site, impacts of Project implementation would be less than significant.

a) ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- a) **ii) Less than Significant Impact.** As noted above, the Project area is seismically active and occasionally subject to strong seismic ground shaking. However, the implementation of the Project would not increase the likelihood or severity of such an event, and the levee would be designed to withstand tectonic forces and their associated effects. Impacts would be less than significant.

a) iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- a) **iii) Less than Significant Impact.** As noted above, the implementation of the replacement levee does not have the potential to increase the likelihood or severity of seismic-related effects, including liquefaction. In addition, the construction of the levee would be of materials with low liquefaction potential and would be compacted to an extent such that liquefaction of the levee or its surroundings would not occur. Impacts would be less than significant.

a) iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- a) **iv) Less than Significant Impact.** The nature of the proposed levee requires that it is constructed of materials compacted to an extent that landslides would not occur at the site, even during strong seismic events. In addition, the presence of the levee would not increase the likelihood or severity of landslides in the Project area as it is a similar land use to what is already on the site. Impacts would be less than significant.

b) Would the project result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Less than Significant Impact.** Construction activities associated with the Project would involve earth movement and the exposure of soil, which would temporarily increase erosion susceptibility. However, the Project would also be required to adhere to standard regulatory requirements, including, but not limited to, requirements imposed by the County of Riverside's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (State Water Resources Control Board Order No. 2012-0011- DWQ) and a Project-specific Water Quality Management Plan (WQMP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. Therefore, impacts would be less than significant.

c) Would the project 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 landslide, lateral spreading, subsidence, liquefaction or collapse?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) Less than Significant Impact.** Refer to the discussion of Thresholds VI (a) (iii) and (iv) for a discussion of hazards associated with liquefaction and landslide hazards. As noted, landslide hazards are not anticipated to affect or result from the Project. CEQA requires an analysis of a Project's potential impacts to the environment, not the environment's potential impact on a Project. Although grading would be part of Project construction, BMPs would be in place to ensure that soils instability would be minimized during this time. Because no aspects of a flood control levee or associated infrastructure could increase the likelihood of landslides, lateral spreading, subsidence, liquefaction, and because the Project area will not experience a significant change in ground cover as a result of Project implementation, impacts would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- d) Less than Significant Impact.** Levees are required to be generally impermeable as their primary purpose is to redirect potential flood flows. As a result, the levee would be constructed of highly compacted non-expansive soils, and on a site currently occupied by an existing levee. Impacts would be less than significant.

e)	Would the project 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?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- e) **No Impact.** The Project would not install any septic tanks or alternative wastewater disposal systems. No impacts would occur.

f)	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input checked="" type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- f) **Less than Significant Impact.** During site excavation and/or grading activities that would occur on the property during Project construction activities, there is a potential to uncover fossils that may be buried beneath the surface of the site. However, in the event of such a discovery work will be halted and a registered archaeologist will be called to the site to investigate. See Mitigation Measure CUL-1. In addition, the likelihood of such a discovery is low as the site is previously disturbed. Impacts would therefore be less than significant with mitigation incorporated.

#### 4.3.8 Greenhouse Gas Emissions

Significant legislative and regulatory activities directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing greenhouse gas emissions in California, and AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. In addition to AB 32, Executive Order B-30-15 was issued on April 29, 2015, that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. In September 2016, AB 197 and Senate Bill (SB) 32 codified into statute the GHG emission reduction targets provided in Executive Order B-20-15.

CARB is the State agency charged with monitoring and regulating sources of emissions of GHGs in California that contribute to global warming in order to reduce emissions of GHGs. The CARB Governing Board approved the 1990 GHG emissions level of 427 million tons of CO<sub>2</sub> equivalent (MtCO<sub>2</sub>e) on December 6, 2007. Therefore, in 2020, annual emissions in California are required to be at or below 427 MtCO<sub>2</sub>e. The CARB Board approved the Climate Change Scoping Plan (Scoping Plan) in December 2008, the First Update to the Scoping Plan in May 2014, and California's 2017 Climate Change Scoping Plan in November 2017. The Scoping Plans define a range of programs and activities that will be implemented primarily by State agencies but also include actions by local government agencies. Primary strategies addressed in the Scoping Plans include new industrial and emission control technologies; alternative energy generation technologies; advanced energy conservation in lighting, heating, cooling, and ventilation; reduced-carbon fuels; hybrid and electric vehicles; and other methods of improving vehicle mileage. Local government will have a part in implementing some of these strategies. The Scoping Plans also call for reductions in vehicle associated GHG emissions through smart growth that will result in reductions in vehicle miles traveled.

HANA Resources performed an Air Quality/Greenhouse Gas Assessment for the Project (Appendix A).

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### a) Less Than Significant Impact.

##### *Construction GHG Emissions*

Construction activities produce combustion emissions from various sources (e.g., demolition, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew). Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The annual CO<sub>2</sub> emissions for each of the planned construction phases (see Appendix A for details) is provided in Table 11.



Table 11. Estimated Construction Greenhouse Gas Emissions					
Construction Phase	Peak Annual Emissions (MT/yr)				Total Emissions/Year (MTCO <sub>2</sub> e)
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> e	
2020					
Site Preparation	22.17	<0.01	0.00	22.35	171.77
Grading	170.46	0.05	0.00	171.77	
2021					
Grading	157.83	0.048	0.00	159.04	159.04
Total Construction Emissions					330.81
Total Construction Emissions Amortized Over 30 years					11.03

#### Operational GHG Emissions

Operation of the proposed Project would not generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption and are considered de Minimis.

Because the amortized total construction emissions over 30 years is not considered significant either locally or regionally, and the Project would have function zero operational emissions, impacts would be less than significant.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Less than Significant Impact.** As noted above under Threshold A, the Project does not have the potential to generate significant emissions such that any conflict with an applicable GHG reduction plan, policy, or regulation would occur. Impacts would be less than significant.

#### 4.3.9 Hazards and Hazardous Materials

A hazardous material is a substance that is toxic, flammable/ignitable, reactive, or corrosive. Extremely hazardous materials are substances that show high or chronic toxicity, carcinogenic, bioaccumulative properties, persistence in the environment, or that are water reactive. Improper use, storage, transport, and disposal of hazardous materials and waste may result in harm to humans, surface and groundwater degradation, air pollution, fire, and explosion.

Both the EPA and the California Department of Health Services (DHS) regulate the concentration of various chemicals in drinking water. variety of pesticides, fungicides and herbicides are used in the cultivation of row crops. Some pesticides and herbicides are injected into the soil as fumigants, while fungicides are generally sprayed by crop dusters. The CalEPA's Department of Pesticide Regulations establishes regulations regarding agricultural chemical use. These regulations are designed to prevent pesticides from being used in such a way as to jeopardize or cause injury to others. Among these regulations is Section 6614 from Title 3 of the California Code of Regulations.

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Less than Significant Impact.** Construction of the proposed Project would involve the use of construction-related chemicals. These include but are not limited to hydraulic fluids, motor oil, grease, runoff, and other related fluids and lubricants. The construction activities would involve the disposal and recycling of materials, trash, and debris. The County's General Plan Safety Element addresses potential hazards in the County and identifies goals and policies to reduce risks and damages associated with hazards, including disposal of hazardous materials due to human activities.

The proposed Project would comply with local, state, and federal requirements for proper storage and handling of hazardous materials, including development of a hazardous materials business plan. In addition, the project would implement BMPs to minimize impacts in the event of a spill or release of hazardous materials used on site. These include, but are not limited to routine cleaning, inspection, and maintenance, development of procedures to mitigate spills, provide signage in construction areas, proper storage and handling procedures, and providing secondary containment of liquid materials.

With mandatory regulatory compliance with federal, State, and local laws (as described above), potential hazardous materials impacts associated with long-term operation of the project would be less than significant and mitigation is not required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) Less than Significant Impact.** During the construction phase of the Project, there is a limited risk of accidental release of hazardous materials such as gasoline, oil, or other fluids associated with the operation and maintenance of construction equipment. However, use of these materials is typical during construction and operation of the project and would be conducted in compliance with applicable State and local regulations. As discussed under Threshold 9a, the Project's construction activities would not have a significant impact associated with hazardous materials handling or disposal. The potential for an accidental release of hazardous materials into the environment is no greater than the potential on any other construction site. Thus, the hazard due to the foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- c) No Impact.** The proposed Project is not within one-quarter mile of any school. No impacts would occur.

d) Would the project 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?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- d) Less than Significant Impact.** According to the Department of Toxic Substances Control GeoTracker database, there are no hazardous materials sites on or adjacent to the Project site. Therefore, the proposed Project would not create a significant hazard to the public because no proposed activities would occur on a LUST cleanup site. Impacts would be less than significant.

e)	For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**e) No Impact.** No airports exist within two miles of the Project site. No impacts would occur.

f)	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**f) No Impact.** No construction equipment or operations would necessitate lane closures. As a result, construction of the proposed Project would have no impact on emergency response or evacuation plans. The Project would also not generate significant traffic, as detailed below. No impacts to emergency response or evacuation plans would occur.

#### **4.3.10 Hydrology and Water Quality**

The hydrologic analysis performed herein is intended to serve as the hydrologic basis to be used in the planning and design of the proposed flood protection improvements, including the determination of impacts, mitigation requirements, and engineering constraints. The hydrologic basis supports the analysis of debris yield, hydraulics, sediment transport, and scour through model development and simulation as well as the use of spreadsheet calculations. This analysis was performed by Q3 Consulting in June 2020 and is attached to this document as Appendix E.

The hydrologic basis was formulated being mindful of the following goals:

- Conveyance of floodwaters along the edge conditions and near vicinity of the proposed improvements as it relates to stream stability, flood and erosion protection, and consequences to adjacent properties and existing infrastructure
- Increased runoff volume and/or flow redistribution attributed to the improvements

The hydrologic objectives focused on the determination of the following for the portion of the Whitewater River watershed that is relevant to the Whitewater Preserve Area:

- *Regional flood frequency curves.* A regional flood frequency analysis was performed based on most current available streamflow data to determine peak flow rates using stochastic methods based on recorded observations to provide a metric for evaluating the reasonableness of peak flow rates computed based on deterministic methods
- *Regional peak flow rates and flood hydrographs.* Peak flow rates and flood hydrographs were determined for selected combinations of frequencies and durations to support the development, simulation, and analysis of steady- and unsteady-flow hydraulic models and supplementary calculations, which contribute to the basis of design formulated for the proposed levee improvements.

The following general approach and assumptions were employed herein:

- Flood frequency analysis were performed based on the method of *L*-moments (Hosking and Wallis, 1997)
- The Riverside County Hydrology Manual (RCHM; RCFCWCD, 1978) Synthetic Unit Hydrograph Method (SUHM) was used as the framework for the deterministic computation of peak flow rates and flood hydrographs
- The relevant Whitewater River watershed was identified as the area tributary to the historic USGS streamflow gage site at Whitewater (USGS ID 10256000), located between Interstate 10 and the Whitewater Preserve Area
- The 50-, 20-, 10-, 2-, 1-, 0.5, and 0.2-percent annual chance storm events were evaluated
- Parameter development was performed using a combination of GIS and spreadsheet applications

The federal government administers the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates discharges into surface waters. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill materials into Waters of the United States or adjacent wetlands without a permit from the U.S. Army Corps of Engineers. As discussed under Flood Hazards, the Federal Emergency Management Agency (FEMA) establishes base flood heights for 100-year and 500-year flood zones. The

primary regulatory control relevant to the protection of water quality is the Federal National Pollution Discharge Elimination System (NPDES) permit administered by the State Water Resources Control Board. This board establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses (e.g., water supply, recreation, and habitat) for a particular surface water or groundwater. There is a Water Quality Control Plan for the Central Coast Region (Basin Plan) which shows how the quality of the surface and ground waters in the Central Coast Region should be managed to provide the highest water quality reasonably possible.

a) Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) **Less than Significant Impact.** The County is one of the municipal permittees under the Municipal Separate Storm Sewer system (MS4) issued by the California Regional Water Quality Control Board. Development projects in the County over one-acre in size must comply with the MS4 permit regulations, including the preparation of Storm Water Pollution Prevention Plans (SWPPPs) which detail short- and long-term Best Management Practices (BMPs) that must be implemented by applicants to ensure that the regulations of the State Water Resources Control Board (SWRCB) including Order WQ 2017-0023-DWQ, the National Pollutant Discharge Elimination System (NPDES), and the federal Clean Water Act (CWA) are met.

The proposed uses on the Project site would be analyzed by a Qualified SWPPP Developer (QSD) so that appropriate short- and long-term BMPs could be developed and outlined in the Project's SWPPP and approved by the County of Riverside Engineering Department. Implementation of these BMPs including regular, documented inspections would ensure that the implementation of the proposed Project would not affect ground or surface water quality. BMPs would include but not be limited to erosion control plans, sediment control, non-stormwater management, and waste management and materials control to limit or reduce potential pollutants at the source. Impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) **Less than Significant Impact.** The proposed Project is for a flood control levee that would be constructed on a site already developed with a similar levee. The only impervious surface proposed by the Project is parts of the flood control levee itself. Due to the size of the site relative to the amount of impervious to be constructed as well as the unpaved nature of the Project and the fact that it proposes a similar land use to what is already at the site, significant barriers to groundwater



percolation would not be constructed or expanded as part of Project implementation. Impacts would be less than significant.

c) i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) **i) Less than Significant Impact.** As noted above, the Project is a flood control levee that would be constructed for the specific purpose of protecting Whitewater Preserve from future flood flows. Levees, by definition, alter the course of water flows for the purpose of protecting natural or manmade resources such as the preserve. However, the Project is a replacement levee that would not change future water flows but rather improve upon the protection provided by the existing levee at the site. In addition, there is not potential for substantial erosion or siltation on- or off-site due to the fact that a levee currently exists on the site. Impacts would be less than significant.

c) ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) **ii) Less than Significant Impact.** As noted above, the proposed Project is a replacement levee that would serve as a flood control barrier to protect Whitewater Preserve from 500-year flood events. As a result, implementation of the Project would prevent flooding in a manner that represents an improvement over the existing levee. Impacts would be less than significant.

c) iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) **iii) Less than Significant Impact.** The Project site currently has adequate capacity to manage all runoff in the area. It is rural in nature and only two structures are present in the vicinity, both of which are part of the management of the preserve. The implementation of the improvement does not have the capacity to substantially affect stormwater drainage systems beyond existing conditions as the proposed Project would serve the same purpose. Impacts would be less than significant.

c) iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) **iv) Less than Significant Impact.** As noted above, the proposed Project is a levee that is designed for the specific purpose of redirecting flood flows around the Whitewater Preserve. However, the proposed levee is a replacement for an existing structure and flood flow patterns would therefore be unchanged by Project implementation. Impacts would be less than significant.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- d) **Less than Significant Impact.** The Project site is a significant distance inland from the coast so there is no possibility of tsunami effects at the site. There are also no inland bodies of water capable of producing seiche conditions in the event of seismic activity. In addition, the Project is a levee that is specifically designed to prevent Project area inundation. Impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e) **Less than Significant Impact.** The proposed levee is a replacement for an existing structure within generally the same footprint and serving the same purpose. As a result, there would be no effects on water quality control or groundwater management plans beyond existing conditions. Impacts would be less than significant.

#### 4.3.11 Land Use Planning

This section discusses any potential impacts that the project could have on established human communities, or its ability to conflict with adopted land use plans in the project area.

a) Would the project physically divide an established community?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) **No Impact.** The proposed Project would occur in a rural area with no human development or habitation outside of recreational facilities such as campgrounds. There are no established, permanent or semi-permanent communities on the Project site or in its vicinity. No impacts would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) **No Impact.** The proposed Project would replace an existing levee with a similar structure that would be designed to protect against 500-year flood hazards. Because the proposed land use upon project implementation is the same as the current land use, and this use does not conflict with the Riverside County General Plan or any Specific Plans, no impacts would occur.

#### 4.3.12 Mineral Resources

In 1975, the California legislature enacted the Surface Mining and Reclamation Act (SMARA). This act provides for the reclamation of mined lands and directs the State Geologist to classify (identify and map) the non-fuel mineral resources of the state to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data.

a) Would the project 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?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- f) **Less Than Significant Impact.** The project area is classified as Mineral Resource Zone 2 (MRZ-2), meaning the area “is underlain by mineral deposits where geologic data significant measured or inferred resources are present”. However, the Project is located in a preserve that prohibits mineral resource extraction in order to maintain the area for recreational purposes. In addition, the levee replacement Project would not impact underlying minerals. As no changes to mineral resources in the Project area would occur, impacts would be less than significant.

b) Would the project 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?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- g) **Less Than Significant Impact.** As discussed above, the Project site is classified as MRZ-2. However, the site is a preserve designed for recreational purposes rather than mineral resource extraction and the Project proposes a levee replacement that would not affect the availability of such resources. Impacts would be less than significant.

#### **4.3.13     Noise**

Environmental noise is commonly measured in A-weighted decibels (dBA). A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called a “sound level”) measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response that duplicates the sensitivity of human ears. Decibels are measured on a logarithmic scale. Generally, a three dBA increase in ambient noise levels represents the threshold at which most people can detect a change in the noise environment; an increase of 10 dBA is perceived as a doubling of loudness.

Since noise levels constantly fluctuate, different types of noise descriptors are often used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (Leq) and the day-night average noise level (Ldn). The most common approach to describe varying noise levels is to define the Equivalent Noise Level (Leq), or average noise level, for a specified period of time. The Leq is a single value that represents the same acoustic energy as the time-varying sound level that actually occurs during the same period. Leq values are usually computed for one-hour periods, but longer or shorter time periods may be specified.

Ldn, the day-night average noise level, represents the weighted noise level during a 24-hour period by adding 10 dBA between 10:00 PM and 7:00 AM to take into account the greater annoyance of nighttime noise as compared to daytime noise. The Community Noise Equivalent Level (CNEL) includes the addition of 5 dBA during the evening hours (7:00 PM to 10:00 PM.) and 10 dBA during the nighttime hours (10:00 PM to 7:00 AM). The Ldn and CNEL are commonly used in establishing noise exposure guidelines for specific land uses. Results of CNEL and Ldn generally agree to within 1 dBA and the two are frequently used interchangeably.

Noise sources can be classified as stationary and mobile. Stationary noise sources are localized and include engine-powered facilities, i.e., wastewater pumping stations. The effect of a stationary noise source diminishes with distance. Mobile noise sources, i.e., automobiles, may affect a larger area and potentially more receptors due to their movement. Transportation vehicles such as automobiles, buses, and airplanes are a major contributor of noise in any urban setting. The level of roadway traffic noise can vary depending on the volume of the traffic, the speed of the traffic, and the number of trucks and buses in the flow of traffic.

#### **County of Riverside Noise Standards**

The County’s General Plan Noise Element provides a thorough background discussion of noise and its effects on human health and quality of life. The County requires that potential noise effects be evaluated in terms of either the CNEL or Ldn. Both of these noise descriptors are based on hourly average noise levels during different times of the day and include an adjustment or penalty for noise during evening and/or nighttime hours.



a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**(a) Less than Significant Impact.** The proposed Project would generate noise during both construction but not operations. Construction noise would be limited primarily to grading activities at the site, which is undeveloped, rural in nature, and surrounded by other rural land uses such as agriculture and open space.

The construction activities at the site would be largely limited to the site of the levee itself. Given the size of the overall site, the activities would have significant physical buffers from nearby receptors, both of which are on parcels that are themselves primarily open space and associated with the preserve. Impacts would be less than significant.

b) Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**(b) Less than Significant Impact.** Construction activities would require the operation of off-road equipment and trucks that are known sources of vibration. However due to the large size of both the Project site and adjoining parcels, no construction activities would occur close enough to existing occupied structures such that they could be affected by construction-generated vibration. There is no potential for operational activities to generate either noise or vibration due to the fact that the Project is a levee. Impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**(c) No Impact.** The Project site is not within the vicinity of a private airstrip, not within two miles of a public airport or public use airport and is not within an airport land use plan. No impacts would occur.

#### 4.3.14 Population and Housing

This section examines whether the proposed Project has the potential to lead to population growth, either directly or indirectly, as well as any potential needs for new housing to accommodate any Project-induced growth.

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) **No Impact.** There is no permanent human population on the Project site or in its vicinity. The Project proposes a levee replacement in a recreational area with no population and only limited infrastructure including campgrounds. No new roads are proposed as part of the project, nor are residential or commercial land uses. As a result, the Project does not have the potential to induce population growth of any kind. No impacts would occur.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- b) **No Impact.** As discussed above, the proposed Project is a levee replacement in an unpopulated area with no permanent housing. No aspect of the levee replacement has residential components or would result in a need for future housing construction on or near the Project area. No impacts would occur.

#### 4.3.15 Public Services

This section addresses whether there are potential impacts for new or expanded fire, police, schools, or parks as a result of Project implementation.

a) i) 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 fire protection?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) i) **No Impact.** The Project site is under the jurisdiction of the Riverside County Sheriff's Department, which is responsible for law enforcement in unincorporated areas of the County. Demand for police protection could decrease upon project implementation as levee failure could result in public safety hazards that would in part be the responsibility of the Sheriff's Department. Because the proposed Project involves the replacement of flood control infrastructure and does therefore not have the capacity to increase the number of visitors to the preserve or create permanent residents or commercial activity beyond existing conditions, no impacts to police services as result of project implementation would occur.

b) ii) 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 police protection?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) ii) **No Impact.** Fire protection at the Project site, as in the rest of unincorporated Riverside County, is the responsibility of Cal Fire. The site is adequately served by fire protection under existing conditions. The Project proposes the replacement of an existing levee in order to ensure ongoing flood protection at the site. Should the site flood, Cal Fire would be partially responsible for any public safety repercussions. Therefore, the levee replacement has the potential to decrease the

future need for fire protection at the site and it does not have aspects that could exacerbate existing fire risk. No impacts would occur.

c) iii) 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 schools?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**c) iii) No Impact.** The Project area has no permanent population and does not contribute students to schools in the vicinity. The replacement of a flood control levee does not have the capacity to create population in the Project area, therefore schools would not be impacted by its implementation. No impacts would occur.

d) iv) 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 parks?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**d) iv) No Impact.** The Project site is a nature preserve intended for public recreation, including uses such as hiking and camping. The replacement of the existing levee would ensure that the site is protected from 500-year flood events over future decades. This would ensure that existing facilities are protected. As a result, Project implementation would preserve existing parks without directly or indirectly creating increased demand on existing facilities. Therefore, no impacts to parks would occur upon project implementation.

e) v) 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 other public facilities?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- e) v) No Impact.** The levee replacement Project would ensure the long-term flood protection of Whitewater Preserve. No aspects of the Project have the ability to affect public services in the project area, which has no permanent population and is rural in character. No impacts would occur.

#### 4.3.16 Recreation

This section examines the proposed Project's potential to lead to an increased demand on recreational facilities in the project area.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- a) **No Impact.** The Project site is located in a rural area with no permanent population and is itself a recreation area. The construction of the replacement levee would ensure that the site remains viable as a public recreation area for decades to come, even in the event of a 500-year flood event. As a result, the Project would itself prevent deterioration of a recreational facility. No impacts would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- b) **No Impact.** The Project proposes a flood control levee to replace an existing levee of the same function to ensure that the project site remains protected from flood events, up to and including 500-year flood hazards. As a result, the Project preserves an existing public recreational facility thereby not necessitating the creation of new facilities or expansion of existing ones. No impacts would occur.

#### **4.3.17     Transportation**

This section discusses potential project impacts to the roadway network both on and around the project site. It is informed by a Traffic Memorandum prepared by LLG Engineers in April 2020 (Appendix F).

##### *Existing Conditions – Traffic Volumes*

AM peak hour and PM peak hour traffic counts were collected by Counts Unlimited on April 28, 2020 at the three (3) key study intersections in order to develop the baseline peak hour traffic volume data for the intersection analysis. Figures 4 and 5 illustrate the existing AM and PM peak hour traffic volumes at the three (3) key study intersections, respectively. The existing AM and PM peak hour traffic volumes illustrated in Figures 4 and 5 are comprised of passenger vehicles, large 2-axle trucks, 3-axle trucks and 4+-axle trucks. The truck traffic turning movements were converted to passenger car equivalents (P.C.E.'s) using County of Riverside approved factors (i.e., P.C.E. factor of 2.0 for large 2-axle trucks, 3-axle trucks and 4+-axle trucks).

##### *Intersection Peak Hour Level of Service (LOS) Methodology*

AM and PM peak hour operating conditions for the three (3) key study intersections were evaluated using the methodology outlined in Chapter 20 of the HCM 6 for two way stop-controlled intersections.

##### *Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)*

The HCM 6 unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a LOS estimate, which is a relative measure of the intersection performance.

##### *Minimum LOS Thresholds and Significant Traffic Impact Criteria*

According to the County of Riverside General Plan, the following countywide target Levels of Service shall be maintained:

- LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well as those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non-Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.
- LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.



- LOS E may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed.

Based on the above, LOS C is required for the three (3) key study intersections. A significant impact occurs at a study intersection when the addition of project generated trips causes peak hour LOS to degrade from acceptable LOS to unacceptable LOS.

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the Project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (LOS) conditions at selected key intersections and roadway segments using expected future traffic volumes with and without forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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**a) Less than Significant Impact.**

*Existing Plus Project Traffic Conditions*

The Existing plus Project traffic conditions have been generated based upon existing conditions and the estimated Project traffic. These forecast traffic conditions have been prepared pursuant to the County's requirement, which requires that the potential impacts of a Project be evaluated upon the circulation system, as it currently exists. This traffic volume scenario and the related analysis will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

Figures 9 and 10 of the traffic memorandum present projected AM and PM peak hour traffic volumes at the three (3) key study intersections with the addition of the trips generated by the proposed Project to existing traffic volumes, respectively.

*Existing Plus Project Capacity Analysis*

Table 3 of the traffic memorandum summarizes the peak hour level of service results at the three (3) key study intersections for Existing plus Project traffic conditions. Review of column (1) of Table 3 indicates that the three (3) key study intersections currently operate at acceptable LOS A during the AM and PM peak hours. Review of columns (2) and (3) of Table 3 indicates that traffic associated with the proposed Project will not significantly impact the three (3) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The three (3) key study intersections are forecast to continue to operate at acceptable LOS A during the AM and PM peak hours under existing plus project traffic conditions.

The proposed Project is forecast to generate 250 daily trips with 44 trips (32 inbound, 12 outbound) produced during the AM peak hour and 44 trips (12 inbound, 32 outbound) produced during the PM peak hour.

The proposed Project will not significantly impact the three (3) key study intersections when compared to the LOS standards and significant impact criteria specified in this letter report. The three (3) key study intersections are forecast to continue to operate at acceptable LOS A during the AM and PM peak hours under existing plus project traffic conditions.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**b) Less than Significant Impact.** Per the CEQA Guidelines section 15064.3, subdivision (b)(1), projects that reduce vehicle miles traveled, such as pedestrian, bicycle and transit projects, should have a less than significant impact. Per the CEQA Guidelines section 15064.3, subdivision (b)(2), transportation projects which reduce vehicle miles traveled should be presumed to cause a less than significant impact.

The Proposed Project is not identified to be a transportation project, and no significant land use changes are proposed. Impacts would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- c) **No Impact.** The proposed Project does not involve any roadway modifications or include incompatible uses of the area. The exiting roadway network would not be affected by Project implementation. No impacts would occur.

d) Would the project result in inadequate emergency access?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- d) **No Impact.** The proposed Project would not result in inadequate emergency access. The proposed construction and operational activities would not include any new design or development that would prevent access to the proposed Project area in the event of an emergency. No impacts would occur.

#### 4.3.18 Tribal Cultural Resources

Potential Project impacts to any Tribal Cultural Resources on or adjacent to the Project site are analyzed below.

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 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)?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) **Less Than Significant with Mitigation Incorporated.** According to PRC Chapter 2.5, Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and items with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in Section 5020.1. Assembly Bill (AB) 52 mandates early tribal consultation prior to and during CEQA review with a requirement to formally conclude consultation. AB 52 established a new category of tribal cultural resources for which only tribes are experts. The mandate requires CEQA documents to incorporate findings, not just in terms of mitigation measures, but also in terms of which type of CEQA document is appropriate.

Tribal consultation was conducted in accordance with AB 52. Notification letters were distributed on September 21, 2020, to tribal parties on the list provided by the City. The tribal parties were the Agua Caliente Band of Cahuilla Indians, La Posta Band of Mission Indians, Torres Martinez Desert Cahuilla Indians. The Agua Caliente Band requested all cultural resources reports prepared for this project; these have been provided. They also requested an on-site monitor during construction activities. See Mitigation Measure CUL-3, below.

**CUL-3:** A Native American monitor shall be contracted by the applicant during ground-disturbing activities into native soils. During excavation activities only, the Native American monitor shall have the authority to halt any activities adversely impacting tribal resources. If human remains are uncovered, the Riverside County Coroner, Native American Heritage Commission, local Native American representatives, and archaeological monitor shall determine the nature of further studies, as warranted in accordance with Public Resource Code 5097.98 and the County's standard conditions of approval.

b) 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 a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) Less Than Significant Impact with Mitigation Incorporated.** The Project site is primarily undeveloped land that would be graded in order to construct the proposed new levee. Although ground-disturbing activities would occur on previously disturbed land, there is the potential to uncover tribal cultural resources. However, adherence to mitigation measure CUL-3 would ensure that Native American monitors are present during grading activities. If a potential tribal cultural resource is discovered, work would halt, and the tribal monitor and archaeological monitor would determine the appropriate course of action.

#### 4.3.19 Utilities and Service Systems

Any potential Project impacts to utilities and service systems including water, wastewater treatment or stormwater drainage, electric power, natural gas, and telecommunications facilities are examined in this section.

a)	Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- a) **Less than Significant Impact.** The proposed Project consists of the demolition of an existing flood control levee and the construction of its replacement. Grading would occur on the site but would be subject to a Storm Water Pollution Prevention Plan that complies with the California Construction General Permit under the National Pollutant Discharge Elimination System, which would ensure that stormwater drainage impacts would be less than significant. Because electric power, natural gas, and telecommunications facilities would not have to be expanded or relocated as a result of Project implementation, impacts would be less than significant.

b)	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input checked="" type="checkbox"/>	No Impact <input type="checkbox"/>
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- b) **Less than Significant Impact.** The proposed levee replacement Project would not require water supplies either during construction or operations, and the land use will not change from existing conditions. As a result, water infrastructure in the area, including on adjacent parcels being used for similar purposes, is in place to serve the needs of the proposed Project. Impacts would be less than significant.

c) Would the project 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?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- c) **Less than Significant Impact.** Wastewater demands would be accommodated existing facilities. Both the Project site and its surroundings are served by wastewater treatment infrastructure intended to serve the agricultural uses for which the area is zoned. Therefore, impacts would be less than significant as the Project does not propose activities that would necessitate and increase in the capacity of existing wastewater systems.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- d) **Less than Significant Impact.** As noted above, the intention of the goals, policies, and land use map of the County's General Plan is that the Project site and surround parcels be used for agricultural purposes. As such, the County's solid waste handling infrastructure has sufficient capacity to serve solid waste generated by the Project, although the agricultural nature of the Project would not generate significant amounts of solid waste as no residential or industrial activities including processing would occur on the site. Impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e) **Less than Significant Impact.** As discussed in the previous Section 4.3.19 (e), the Proposed Project would generate minimal wastes and comply with all County and State solid waste diversion, reduction, and recycling mandates. Project-related BMPs would be implemented to facilitate compliance with existing solid waste reduction statutes. Impacts would be less than significant.



#### 4.3.20 Wildfire

Potential Project impacts regarding the exposure of persons or structure to the effects of wildfire, or any potential for the Project to present an increased risk of wildfire, are examined below.

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project impair an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- a) No Impact.** The proposed Project is not located within a very high fire hazard severity zone (CAL FIRE 2007). The proposed construction and operational activities would not result in the impairment of an adopted emergency response plan or evacuation plan within a fire hazard severity zone, and no aspect of the proposed Project would create conditions more conducive to fires beyond existing conditions. No impacts would occur.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Potentially Significant Impact <input type="checkbox"/>	Less than Significant With Mitigation Incorporated <input type="checkbox"/>	Less than Significant Impact <input type="checkbox"/>	No Impact <input checked="" type="checkbox"/>
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- b) No Impact.** The proposed Project is not located within a very high fire hazard severity zone (CAL FIRE 2007). The proposed construction and operational activities would not exacerbate wildfire risks or expose the residents and businesses to pollutant from wildfires as there are no residential or commercial uses in the area. No impacts would occur.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- c) **No Impact.** The proposed Project is not located within a very high fire hazard severity zone (CAL FIRE 2007). The proposed construction and operational activities would not require installation of maintenance of associated structures that would exacerbate wildfire risk. No impacts would occur.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- d) **No Impact.** The proposed Project is not located within a very high fire hazard severity zone (CAL FIRE 2007). The proposed construction and operational activities would not expose people or structures to risks involving post-fire slope instability or drainage changes. No impacts would occur.

#### 4.3.21 Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) **Less than Significant with Mitigation Incorporated.** Although the implementation of the proposed Project has the ability to affect fish or wildlife species, adherence to the mitigation measures detailed above would ensure impacts are 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)?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- b) **Less than Significant Impact.** There are no associated projects on or near the Project site that would occur as a result of Project implementation. No other projects have been identified by the Lead Agency within a 1-mile radius of the Project site. Therefore, 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?	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- c) **No Impact.** The proposed Project would not result in any significant impacts on human beings upon implementation of the mitigation measures described above. The Project proposes a new levee on a site occupied by an existing levee. There are no aspects of the Project that would cause adverse

impacts to human beings on or near the Project site, either directly or indirectly. No impacts would occur.

## SECTION 5.0 – REFERENCES

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